

ARMY HIGH COMMAND SERIES

MS # P-041^{ee}

THE GENERAL ARMY OFFICE

By

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**HISTORICAL DIVISION
HEADQUARTERS
UNITED STATES ARMY, EUROPE
1954**

FOREWORD

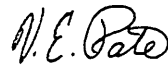
This study was prepared in 1947-1948 by a group of former German Army officers headed by Generalmajor Hellmuth Reinhardt, who from 1940 to 1944 was a branch chief in the Organizational Division of the Army General Staff and deputy chief of the General Army Office, with which the study is concerned. It was written largely from memory and is not documented. Nevertheless it presents the best available description of this important agency of the German Army.

The General Army Office does not have a counterpart in the United States Army. Before World War II it planned, in general, for the procurement and mobilization of all human, animal, and material resources necessary to build the Wehrmacht. After the war started it concerned itself principally with the replacement of such resources in the Army. Thus it combined the functions performed in the United States by the Selective Service Administration and the recruiting services with certain functions of Army Field Forces and many branches of the Army general and special staffs, including organization and training, research and development, installations, and others.

The portion of the study dealing with the German replacement system is of particular interest to United States staff planners. An appendix prepared by Colonel Hermann von Fichte describes the German method of formulating tables of organization and equipment.

Minor revisions have been made, but the translation is an accurate presentation of the German point of view.

Karlsruhe, Germany
30 October 1954



V. E. PATE
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CHAPTER 1

MISSION

I. IN PEACETIME

Prior to the war the General Army Office, within the Army High Command, was the agency responsible for the entire peacetime organization of the army and for preparations against the eventuality of war. This responsibility included the organization of the peacetime and wartime army into units and installations, the number and types of which were determined according to objectives established by the Army General Staff. It also included the internal organization and composition of individual units, the procurement of personnel and materiel, and the utilization of funds appropriated in the national budget for these purposes.

The General Army Office was responsible directly to the Commander in Chief of the Army and acted in accordance with directives received from him (Chart 1, page 3). Broadly speaking, its areas of responsibilities covered the following fields:

- (1) The maintenance of records showing the nation's potential in manpower, materiel, and money as a basis for advance planning of the build-up of the peacetime and wartime army; the coordination of Army High Command requirements with these potentials.
- (2) The phase-by-phase expansion of the peacetime army to the extent made possible by the re-introduction of general conscription and the annexation of Austria; the preparation of annual phase orders implementing this program, in cooperation with the Army General Staff and on the basis of data referred to in (1), above; the issuance of these orders, with the approval of the Supreme Command. This program had not been completed by the beginning of the war.
- (3) The preparation, issuance, and continuous revision of general directives, known as the Army Mobilization Plan, regulating preparations for and the actual execution of the transition of the army from a peacetime to a wartime footing in the event of mobilization; the preparation and issuance of the required detailed orders, known as

the Annual Mobilization Directives, regulating the phases of mobilization according to the established objectives, as set forth in (2), above.

(4) In peacetime, the registration, examination, drafting, and allocation of men fit for military service; registration and advance disposition of men fit for military service but not in actual service; preparations for their induction in the case of mobilization; supervision of the conscripting and recruiting organization required for this purpose; drafting and issuance of the requisite regulations and orders.

(5) The procurement and distribution of horses and other animals for the peacetime army, the registration of available animals, and preparations for the procurement of additional animals in case of mobilization.

(6) The listing of specifications for the development and procurement of arms, equipment, and ammunition of all types, including motor vehicles; the administration of this materiel, its distribution to peacetime units, and its stockpiling against the eventuality of mobilization, through the ordnance installations controlled by the General Army Office; the procurement of motor vehicles, fuels, tires, and tubes; preparations for the requisitioning of additional supplies from private industry.

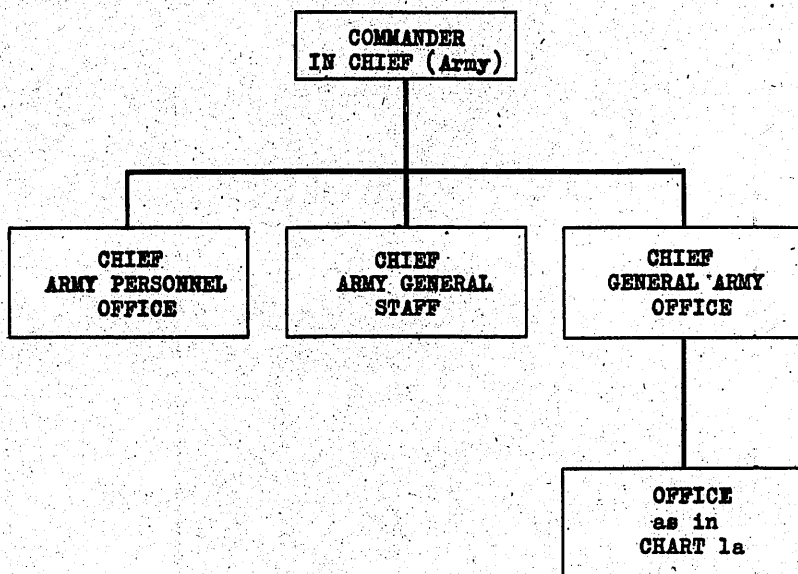
(7) In cooperation with the Army Administration Office, the development, procurement, and administration of clothing and items of personal equipment; distribution to units of the peacetime army and stockpiling against the eventuality of mobilization.

(8) Computation of financial requirements and procurement of funds from the Wehrmacht High Command; distribution of allocated funds; accounting and auditing in cooperation with the General Accounting Office of the Reich.

(9) Planning and distribution of billets, office premises, troop training grounds, and other installations for the peacetime army.

(10) Organization and training of the individual arms and services. This function included the establishment and issuance of tables of organization, tables of equipment, and training manuals for all units of the peacetime and wartime army excluding manuals on combined-arms training, which were the concern of the Army General Staff.

**STATUS OF GENERAL ARMY OFFICE WITHIN ARMY HIGH COMMAND
PRIOR TO MOBILIZATION**



(11) All matters concerning the internal structure and administration of units;¹ the personal affairs of noncommissioned officers and men, and legal problems of the Army; preparation of the requisite directives, regulations, and orders.

(12) Control of the medical and veterinary services.

From the foregoing it will be seen that to a considerable extent the General Army Office exercised the functions of a ministry of war within the Army High Command. Accordingly it was allowed a share in proposing legislation.

In many fields, agencies of the General Army Office responsibly handled matters not only for the Army but for all the armed forces. In certain matters normally within the area of responsibility of the General Army Office, the responsibility for basic measures affecting all the armed forces was assumed by the Wehrmacht High Command or delegated to the Navy or Air Force High Command. In such cases the General Army Office was required to protect Army interests and to draft the requisite supplementary clauses and orders of implementation for the army.

The status of the General Army Office within the Army High Command in times of peace can therefore be summarized as follows: The office controlled manpower, materiel, and funds. Data computed by it established a basis for harmonizing the desires of the Supreme Command with actual possibilities. Its mission was to convert the resultant organizational plans into practice. It was responsible for the internal structure of all army units and also for the protection of troop interests in all areas.

II. IN WARTIME

On the whole, mobilization brought no considerable changes in the responsibilities of the General Army Office. Its main mission now was to procure for the field forces everything they required to maintain their striking power and fulfill their mission. These requirements included practically everything--literally from shoe-nails to trained and fully-equipped soldiers, and from the smallest

¹This included relationship between ranks; disciplinary and military penal affairs; right of complaint; induction and discharge regulations and procedures; careers and conditions of promotion for NCOs and other enlisted personnel; welfare installations of the Army; religious affairs; garrison duty.

spare part to the tank, complete with accessories and ready for action.

Matters for which the General Army Office was not responsible were: Officer replacements; replacement of civilian officials; supply of rations and fodder; supply of billet furnishings; the provision of funds. Officer replacements were the responsibility of the Army Personnel Office and the other four areas were the responsibility of the Army Administration Office, as in peacetime, so that close cooperation of the General Army Office with these offices was essential.

Personnel and materiel were made available to the field forces by the General Army Office in two ways: by transfers to replace losses suffered by field units and to maintain stocks of ammunition and other expendable items; and by the organization of entirely new major and smaller units or the reorganization or rehabilitation of depleted units withdrawn from the front. The latter method, which was introduced shortly after the war began and grew in importance as the war continued, forced the General Army Office to cope with organizational problems of ever-increasing magnitude.

The office retained the ministerial functions and particularly during the war and continued as well to handle responsibly, for all the armed forces, the matters so handled during peace.

Nevertheless, the status of the office within the Army High Command underwent change, upon mobilization, in that it was no longer responsible directly to the Commander in Chief of the Army but rather to the newly-appointed Commander of the Replacement Training Army (Chart 10, page 68).

Soon after mobilization in the autumn of 1939, the chief of the General Army Office was appointed acting commander of the Replacement Training Army in addition to his other duties. Now the functions of both the General Army Office and the Office of the Commander of the Replacement Training Army were performed by the Policy Group of the General Army Office, which served simultaneously as the staff of the commander. However, the two offices were separated again in February 1940, and the General Army Office was placed again under the Chief of Army Equipment and Commander of the Replacement Training Army, as at the outbreak of war. The reasons for these changes have been dealt with in MS # P-041dd, a study of the office of Chief of Army Equipment and Commander of the Replacement Training Army.

The appointment of a Chief of Army Equipment and Commander of the Replacement Training Army consolidated the control of all functions concerned with army manpower and equipment, similarly to the way in

which command of the field forces had been consolidated under the Chief of the Army General Staff. At the same time a clear line of division was drawn between the command of the field forces and the command of the Replacement Training Army. Upon the General Army Office, this new arrangement had the following principal effects:

(1) In all manpower and equipment matters, cooperation with the Army Ordnance Office and the Army Administration Office was now directed by a higher agency; it was no longer necessary to obtain decisions from the chiefs of the two offices, at field headquarters. Overall Army interests in these matters were represented uniformly in relations with the Army field forces, the Navy, the Air Force, and non-military agencies. Differences of opinion between the three Army offices could be settled by the Chief of Army Equipment and Commander of the Replacement Training Army.

(2) In practice, the major part of the organizational missions of the General Army Office was carried by the replacement units and zone of interior agencies. These were under the direct control of the Chief of Army Equipment and Commander of the Replacement Training Army, so that orders drafted by the General Army Office regulating their organization and activities could be issued directly on his personal responsibility.

(3) In general, the division of command authority now made it impossible for the General Army Office to issue orders in matters concerning the field forces. When the organizational missions of the General Army Office necessitated certain measures in the field forces, such as the release of cadre personnel for new units, these measures were taken by the Army General Staff. Accordingly, the responsibility of the General Army Office ceased in replacement matters, when personnel replacements were placed in march readiness or when materiel replacements were loaded on supply trains; and in the case of new, rehabilitated or reorganized units, when the units were ready for the field. Orders concerning the departure of personnel and their transfer to the field forces were issued by the Army General Staff.

(4) Directives drafted by the General Army Office in performance of its ministerial functions, such as directives concerning administrative routine in field units, were valid in the field forces as well as in the Replacement Training Army. They were now issued jointly by the General Army Office and the appropriate authorities at Field Headquarters, namely, the Army General Staff or the office of the "General for Special Assignments" attached to the Commander in Chief. This procedure did not apply to tables of organization, tables of equipment or the printed regulations issued by the office,

such as training manuals, which remained an exclusive responsibility of the office.

(5) The Chief of Army Equipment and Commander of the Replacement Training Army relieved the General Army Office of all responsibilities in budget matters shortly after his appointment and placed the branches handling these affairs under his own control, so that the office now had no basic functions to perform in this area.

(6) The Chief of Army Equipment and Commander of the Replacement Training Army, with his staff, also assumed responsibility for training in the Replacement Training Army. Later, a separate office under a chief of replacement training was established for this purpose. The arms and services branches under the General Army Office nevertheless continued to participate in training activities, as will be described in Chapter 2.

It can be said in summary that although the appointment of a Chief of Army Equipment and Commander of the Replacement Training Army, who was given control over the General Army Office, seemed to place that office one step lower in the Army High Command than it had been prior to the war, in actual fact the measure considerably strengthened the position of the office and facilitated its work. Among the offices now controlled by the Chief of Army Equipment and Commander of the Replacement Training Army, the General Army Office continued to play the major role in all matters of army organization and equipment. All problems in these fields were discussed with the Chief of Army Equipment and Commander of the Replacement Training Army in person almost daily. Because of his extensive authority, he was able to protect the interests of the General Army Office in negotiations with parallel or subordinate agencies far more effectively than the Chief of the General Army Office, as chief of only one office, could have done.

The long duration of the war, the increasing expanse of the theaters of operations, and the mounting severity of the fighting led to increased requirements in personnel and materiel in all fields and to constantly new organizational problems which the General Army Office had to solve. Furthermore, recent battle experience had to be evaluated and applied and entirely new problems, such as those pertaining to tropical equipment and furlough traffic, had to be coped with. For the General Army Office this meant not only an increased work load in all of its normal fields but also added responsibilities in completely new fields. Nevertheless no fundamental changes took place until late in the war.

In 1943, in order to stress the fact that the General Army Office was an agency of the Wehrmacht High Command in conscription and recruiting matters, the chief of the office was appointed chief of the Conscription and Recruiting Office in addition to his other duties. This measure entailed no organizational changes. In 1944, however, he was relieved of his responsibilities as chief of the Conscription and Recruiting Office, and the Replacement Branch of the General Army Office was transferred to the Wehrmacht High Command. In the field of motor transportation, a similar situation developed. In 1943 the post of Chief of Wehrmacht Transportation was created. This post was held by the Chief of Army Motorization, who was at the same time Chief of the Group for Army Motorization under the General Army Office. On 1 July 1944 this dual relationship was dissolved and the responsibility for Wehrmacht transportation was transferred to the Wehrmacht High Command.

These organizational changes will be treated in more detail later in this study (pages 44 and 66). All that need be said here is that these functions--conscription and recruiting and motorization--were the two most important functions which the General Army Office had handled for the armed forces as a whole. The transfer of this responsibility to the Wehrmacht High Command relieved the General Army Office of two difficult and complicated functions which had been a constant source of friction with military and civilian authorities. On the other hand, it considerably decreased the influence which the General Army Office was able to exercise in these two highly important fields. This decrease in influence was harmful to the Army, which was already at a disadvantage in comparison with the Navy and the Air Force because of the organizational peculiarities of the top-level command; but from the viewpoint of the Wehrmacht High Command the measures were a logical sequence of the tendency to strengthen its authority over the three branches of the armed forces.

The general working procedures of the General Army Office also changed gradually during the war. During the early stages of the war, stockpiling and long-range planning had been possible and the General Army Office had been able to make voluntary offers to increase the numbers of replacements and quantities of materiel furnished to the field forces. Later, manpower and materiel shortages which gradually developed in all fields necessitated the adoption of hand-to-mouth methods to an ever increasing extent and made it imperative to study carefully the flood of frequently contradictory requisitions²

²The difficulties caused by the multiplicity of agencies which submitted requests have been described in MS # P-041dd, a study of the office of Chief of Army Equipment and Commander of the Replacement Training Army.

which were received. Each requisition had to be examined to ascertain its urgency. Moreover, the quantity and time of availability of procurable means had to be calculated with extreme care. Furthermore, suddenly changed plans frequently made new makeshift measures necessary. One of these measures, for instance, involved preparations resembling a mobilization plan for the Replacement Training Army, which repeatedly helped the field forces in critical situations through the speedy organization of new units. (See page 97.)

To the end of the war the General Army Office persevered in its effort to devise new ways and means of fulfilling urgent requirements to the fullest extent possible. At all times its slogan was "Everything for the Front."

CHAPTER 2

ORGANIZATION AND DISTRIBUTION OF FUNCTIONS

I. INTRODUCTION

This chapter will describe the organization of the General Army Office and show how its work was distributed among its subdivisions.

The organization provided for in the Mobilization Plan and in use temporarily in 1939 will be described first. To illustrate wartime changes, four periods have been selected: September 1939, summer 1940, autumn 1943, and 1945. Reasons for this selection are as follows: By the summer of 1940 the first experience gained in the war had been applied and the organization and distribution of functions had been changed and improved. In the autumn of 1943 the responsibilities of the office were at their greatest, and this period is particularly suited, therefore, for depicting the multiplicity of responsibilities of the office during the war. After the autumn of 1943, the Wehrmacht High Command succeeded in its efforts to assume more and more responsibilities. This development had no immediate repercussions on the General Army Office¹ but gradually made itself felt after the winter of 1943-1944. An effort will be made to show how far it had progressed by the end of the war. However, no complete picture of this period can be presented and the complete accuracy of the information submitted cannot be guaranteed, since very few records have been available and contact with the best informed authorities on the subject has been impossible.

The chapter will describe

- (1) The organization of the General Army Office;
- (2) The branches controlled by the office;
- (3) The Policy Group of the office and its functions.

Under each heading it will discuss each of the four selected periods separately.

¹Even after the attempted assassination of Hitler on 20 July 1944 no drastic changes affecting the General Army Office were made.

II. ORGANIZATION OF THE GENERAL ARMY OFFICE

The organization of the General Army Office into groups, branches, and independent sections remained unchanged at the time of mobilization. In fact, no fundamental changes took place throughout the entire war (Charts 1a-5). However, there were changes in the number of controlled branches, for the following reasons:

(1) The office was relieved of certain responsibilities. Early in 1940 the Chief of Army Equipment and Commander of the Replacement Training Army himself assumed responsibility for all financial affairs. Consequently the Army Budget Branch and the Central Branch (Chart 2) were separated from the General Army Office and placed under his immediate control.

In 1942 the Engineering Officer Corps was dissolved. Thus the Army Technological Branch (Chart 2) became superfluous and was discontinued.

(2) Inter-branch functions were transferred. In 1940 the Penal Section and the Bendler Block Headquarters Commandant Section² (Chart 1a), both independent sections within the Group for Replacements and General Troop Matters until then, were incorporated in the Army Affairs Branch and the Branch for Billets and Maneuver Areas, respectively (Chart 3).

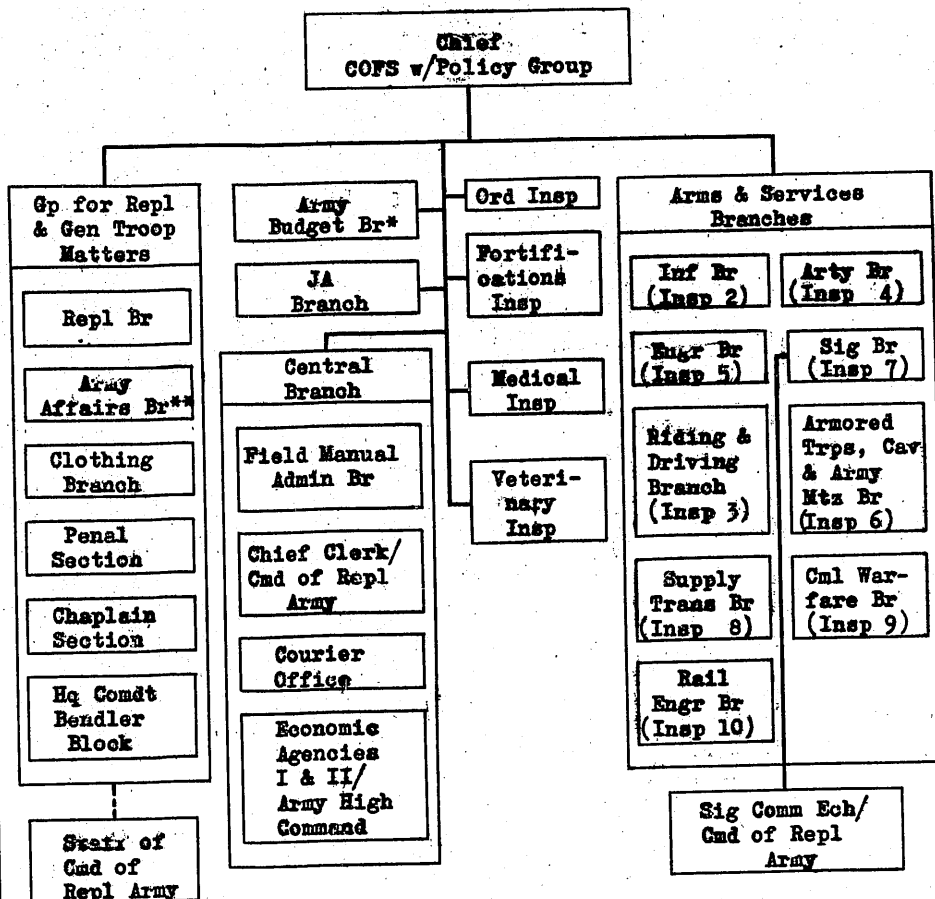
At the end of 1943, the Clothing Branch (Chart 3) was discontinued and its functions transferred to the branch handling arms, equipment, and ammunition.

(3) The office was assigned new responsibilities. By the end of 1939 when the need for centralized control of billets and maneuver areas became apparent a branch was established (Chart 3).

The creation of new arms and services in the Army required the establishment of corresponding arms and services inspectorates. Thus, the Branch for Technical Troops (Inspectorate 11) was established in 1941, the Motor Transport Branch (Inspectorate 12) in 1942, and the Army AAA Branch (Inspectorate 13) in 1943 (Chart 4). A rocket weapons branch was being planned in 1945.

²Bendler Block: The block of buildings in which the General Army Office had its premises in Berlin.

**GENERAL ARMY OFFICE
ORGANIZATIONAL CHART, 1939
PRIOR TO MOBILIZATION**

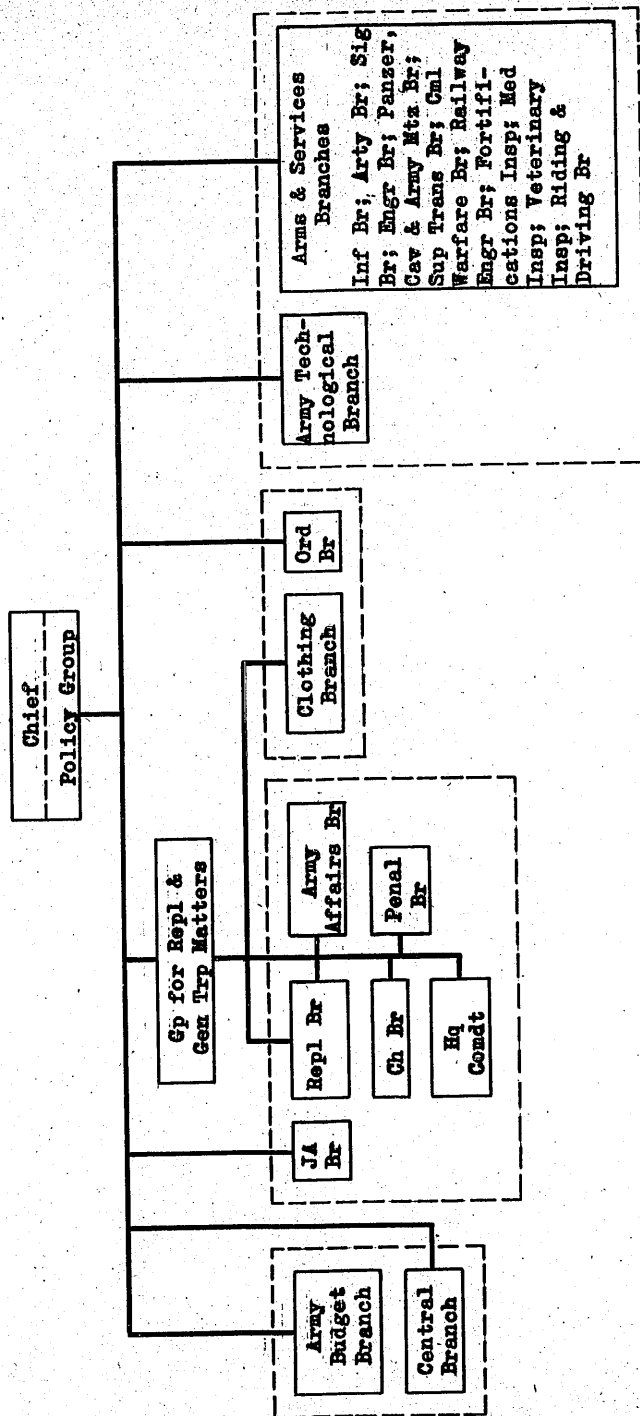


* Transferred to Chief of Army Equip & Cmd of Repl Tng Army after four or six weeks.

** Later designated Branch for General Troop Matters

----- Lower level agency

GENERAL ARMY OFFICE, 1939
SUBDIVISIONS GROUPED ACCORDING TO FUNCTIONS

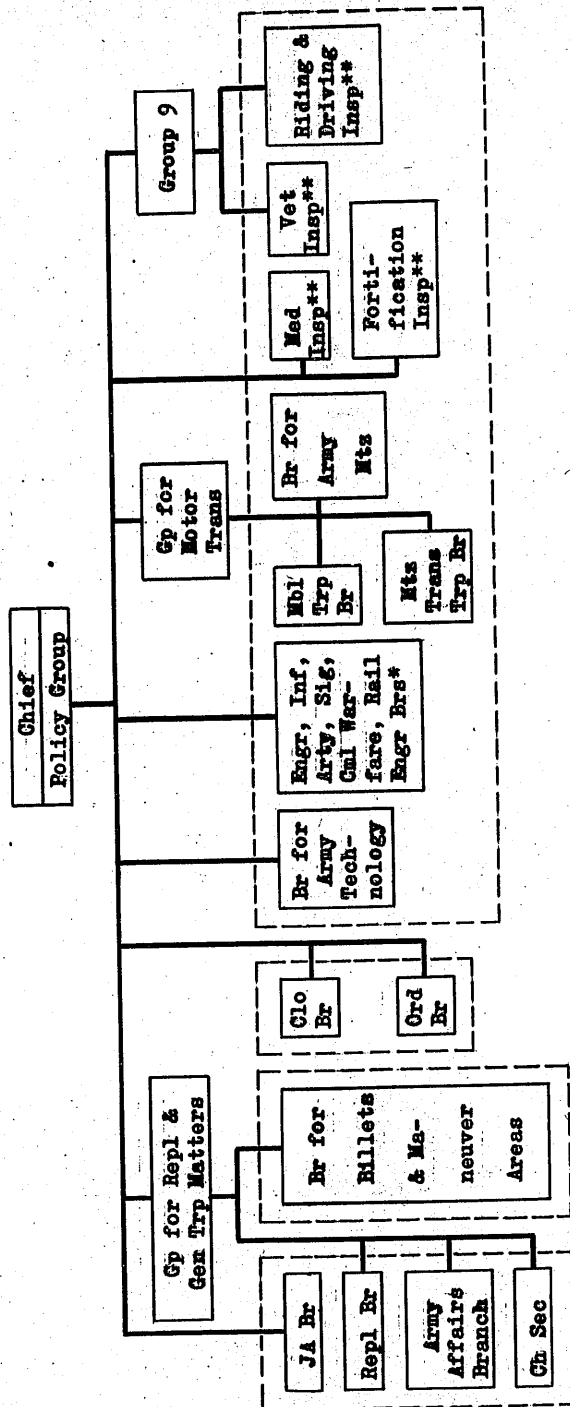


Chain of Command
Branches performing related functions

GENERAL ARMY OFFICE

Summer 1940

SUBDIVISIONS GROUPED ACCORDING TO FUNCTIONS



* Performed exclusively as Arms and Services Branches

** In addition to other functions, these branches had the status of Arms and Services Branches

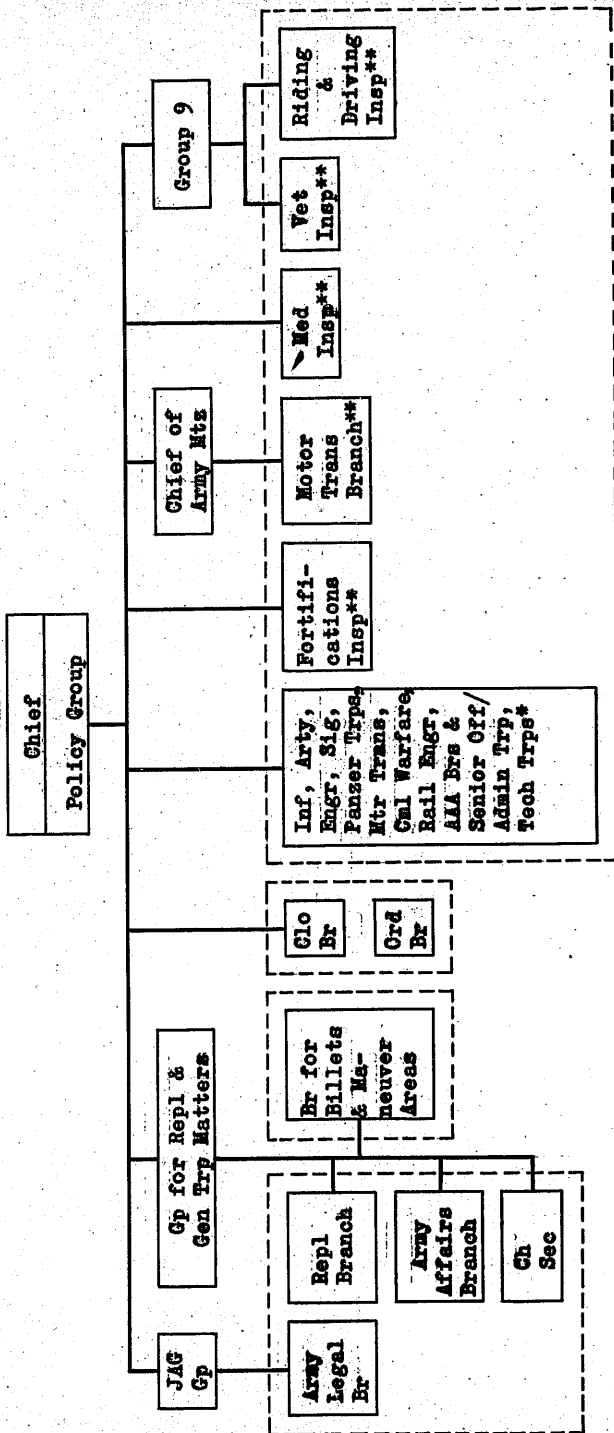
— Chain of Command

--- Branches performing related functions. From left to right the groupment within the dash lines correspond to groupments 2, 3, 4 and 5.

GENERAL ARMY OFFICE

Autumn 1943

SUBDIVISIONS GROUPED ACCORDING TO FUNCTIONS



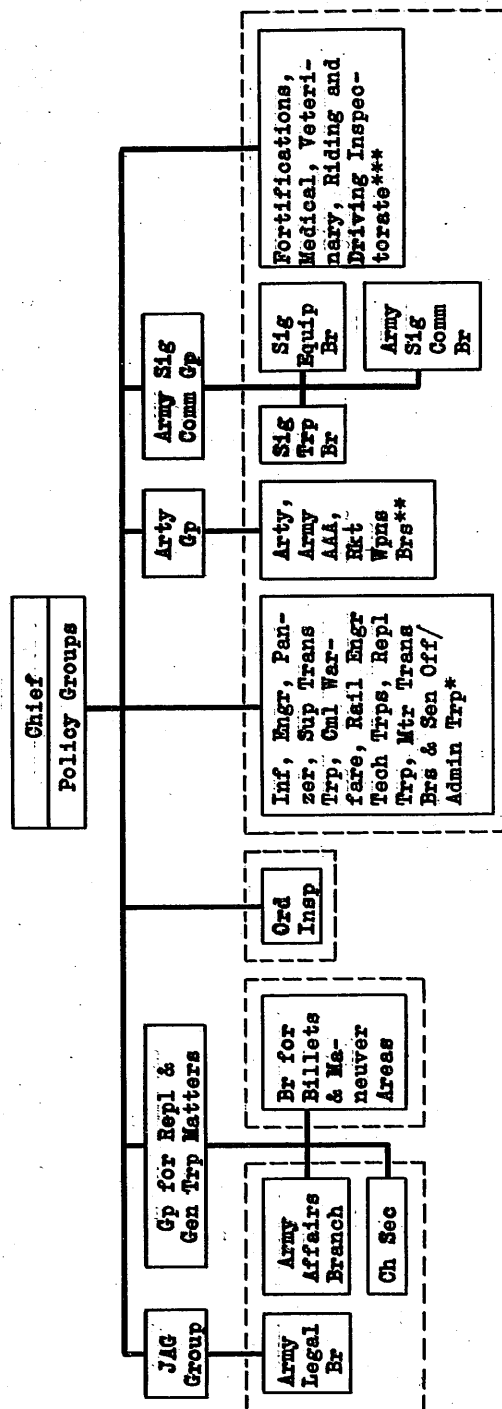
* Performed exclusively as Arms and Services Branches

** In addition to their other functions, these branches had the status of Arms and Services Branches

----- Chain of Command

----- Branches performing related functions. From left to right, the groupments within the dash lines correspond to groupments 2, 3, 4, and 5.

GENERAL ARMY OFFICE, 1945
SUBDIVISIONS GROUPED ACCORDING TO FUNCTIONS



* Performed exclusively as Arms & Services Branches

** Establishment intended but not carried out

*** In addition to other functions, these branches had the status of Arms and Services Branches

————Chain of Command

-----Branches performing related functions. From left to right, the groupment within the dash lines correspond to groupments 2, 3, 4, and 5.

(4) Existing branches were sub-divided. In the autumn of 1939 responsibility for general problems of motor transportation was transferred from the Mobile Troops Branch (Inspectorate 6) to the newly established Army Motorization Branch (Chart 3) and later to Inspectorate 12 (see (3), above and Chart 4).

Early in 1942 responsibility for the affairs of administrative units was transferred from the Supply Branch (Inspectorate 8) to an independent branch under a Senior Officer of Administrative Troops within the General Army Office (Chart 4).

By the end of 1943 the activities of the Signal Branch (Inspectorate 7) had become too extensive for one branch. The Branch therefore was subdivided into three branches: a Signal Troops Branch (Inspectorate 7), a Signal Equipment Branch, and an Army Signal Communications Branch (Chart 5).

The principal difficulties encountered in the internal organization of the General Army Office arose from the large number of its branches and, correspondingly, the diversity of tasks which the office had to perform. To supervise the twenty to twenty-five branches and coordinate their activities was a tremendous burden on the Chief of the General Army Office and exceeded normal human capacity. The restrictions of time alone made it practically impossible for him to hear the reports of the various branch chiefs frequently enough to guarantee uniform action by all agencies of the office. It was therefore necessary for the branches to work with a great measure of independence, and the chief was informed only in broad outline of their activities. Only in important matters of policy could a decision by him be requested.

To relieve the strain, inter-office groups, each of which controlled a number of branches, were formed. Thus the Group for Replacements and General Troop Matters (Charts 4 and 5), which had existed before the war, now controlled the branches handling the affairs of enlisted personnel before, during, and after their period of active military service. Originally, this group had controlled the Clothing Branch also, but during the war this branch was transferred to the Ordnance Inspectorate, a far more logical disposition.

The only way to bring about genuine improvement would have been to group related arms and services branches, as was done in the Artillery Group in 1944. The establishment of the Army Judge Advocate General Group (Charts 4 and 5) brought no real improvement because it absorbed only one of the branches controlled by the General Army Office. In like manner, the establishment of the Army

Signal Communications Group (Chart 5) brought no relief, since originally the three branches under its control had been one branch--the Signal Branch (Inspectorate 7).

The temporary consolidation of the Panzer Troops Branch (Inspectorate 6), the Supply Branch (Inspectorate 8), and the Branch for Army Motorization under the Group for Motor Transportation (Chart 3) and the subsequent dissolution of this group in 1942 occurred for reasons which will be dealt with in a separate section of this manuscript. While it lasted, the grouping of these branches was advantageous, but not as effective as it might have been because the chief of the group, General von Schell, had to devote too much of his time to duties outside of the General Army Office.

The consolidation of the Veterinary Inspectorate and the Riding and Driving Branch (Inspectorate 3) into Group 9 (Chart 3) was a wise measure, and the dissolution of the group in 1945 (Chart 5) had no sound basis. Certain circles resented the fact that the group was controlled by the Veterinary Inspector. It was conceded that he was an authority on the subject of horses but it was feared that the control of all army riding and driving activities would be taken over gradually by officers of the veterinary service.

Further examination of the problem reveals that the following measures could have been taken: The Engineer Branch (Inspectorate 5), the Railway Engineer Branch (Inspectorate 10), the Branch for Army Technology, which was later the Branch for Technical Troops (Inspectorate 11), and the Fortifications Inspectorate could have been consolidated to form one group; the Chemical Warfare and Air Raid Protection Branch (Inspectorate 9) could have been included in the Artillery Group; the Motor Transport Branch (Inspectorate 12), the Supply Branch (Inspectorate 8), and the branch controlled by the Senior Officer of Administrative Troops could have formed one group; the Medical Inspectorate and the branches which controlled the two largest arms--namely, the Infantry Branch (Inspectorate 2), and the Panzer Troops Branch (Inspectorate 6)--could have been expanded to form groups. In this way, all arms and services branches would have been combined into eight groups. Together with the Group for Replacements and General Troop Matters, the Ordnance Inspectorate, and the Judge Advocate General Group, a total of eleven agencies would then have been responsible directly to the Chief of the General Army Office.

Such an arrangement would have facilitated work considerably, but the introduction of such sweeping changes was not a concern of the General Army Office alone. The arms and services inspectorates represented the several arms and services within the Army High Command;

therefore the suggested grouping would have been feasible only if a corresponding grouping had taken place throughout the Army. Whether this development would have been practicable is a matter of conjecture. The fact is, that the spirit of independence on the part of the individual arms and services and their representatives within the Army High Command--namely, the arms and services branches under the General Army Office and the chiefs of arms and services attached to the Chief of the Army General Staff--was so strong that no serious attempt could be made to introduce the necessary changes.

That no really serious crises developed in spite of the difficulties which have been described is evidence of the intelligent co-operation of all agencies under the General Army Office. It is evidence, in particular, of the expert and comprehensive guidance provided by the branch chiefs in the spirit of the policies established by the Chief of the General Army Office at the branch chief conferences, which were held only at long intervals. Usually, minor deviations from the established line on the part of some of the branches were halted in time. At the same time, one of the reasons for the relatively large size of the Policy Group of the General Army Office in comparison to the policy groups of other offices of the Army High Command was the necessity of holding together such a large number of branches and of directing their efforts toward a common goal.

III. BRANCHES OF THE GENERAL ARMY OFFICE AND THEIR MISSIONS

The branches of the General Army Office might be divided roughly, according to activities, into the following groups:

(1) The Army Budget Branch and the Central Branch, which handled financial matters.

(2) The Judge Advocate Branch and the branches controlled by the Group for Replacements and General Troop Matters--namely, the Replacement Branch, the Branch for General Troop Matters, the Penal Section, and the Chaplain Section. These were responsible for all personnel matters--that is, for all matters, including judicial questions, growing out of the relation of able-bodied men to military service and to the Army.

(3) The Branch for Billets and Maneuver Areas, which protected General Army Office's interests in its particular field.

(4) The Clothing Branch, which was responsible for the processing, administration, and issue of clothing and personal equipment, and the Ordnance Inspectorate, which had the same functions in respect to other army materiel.

(5) Branches 2-14, the Fortifications, Medical, and Veterinary Inspectorates and, to a certain extent, the Technical Troops Branch. These branches protected the interests of their respective arms and services and were responsible for the development of arms, ammunition, and equipment and for certain other special areas.

The more important responsibilities of the branches comprising Groups 1-4, together with the Technical Troops Branch are shown in Table 1. Those of the arms and services branches, Group 5, are shown in Appendix B. In Appendix B, column a shows the status of the branches at the time of mobilization; column b, c, and d their status in the summer of 1940, the autumn of 1943, and at the end of the war respectively.

1. The Army Budget Branch and the Central Branch. Table 1 shows the responsibilities assigned to these two branches in accordance with the Mobilization Plan. On the whole, these corresponded to peacetime responsibilities. Functions which became unnecessary were to cease.

The Army Budget Branch was concerned chiefly with planning; the Central Branch with the direction of actual financial transactions of the Army High Command. In addition, the Central Branch was responsible for administrative routine within the Army High Command (for which purpose it controlled the Chief Clerk, the Message Center, and the housekeeping agencies) and for the administration of Army field manuals. According to the Mobilization Plan, the Army Budget Branch was to be amalgamated with the Central Branch about four to six weeks after mobilization, but this action was never taken.

The activities of these two branches will not be discussed further because they were separated from the General Army Office when the Chief of the General Army Office relinquished the concurrent position of Commander of the Replacement Training Army. The Field Manual Administration Branch, until mobilization a section of the Central Branch, was the only part of the Army Budget Branch or the Central Branch which remained under the General Army Office.

2. The Group for Replacements and General Troop Matters and the Judge Advocate Branch.

a. The Group for Replacements and General Troop Matters existed in peacetime and had been formed from the former General Branch when the increased activities resulting from the re-introduction of general conscription made it necessary to establish a separate branch, the Central Branch. Broadly speaking, functions were so distributed within the Group for Replacements and General Troop Matters that all

Table 1--GENERAL ARMY OFFICE

Responsibilities of Branches,
Excluding Arms and Services Branches
(Described in Appendix B)

<u>Branch</u>	<u>Responsibilities</u>
<u>Army Budget Branch</u> (Transferred from Army General Office to Chief of Army Equipment and Comd of the Replacement Army early in 1940.)	Wartime Budget; Liquidation of peacetime budget; Allowances and clearance of claims; Planning, computing, personnel distribution charts.
<u>Central Branch</u> (Excluding the Field Manual Admin Sec, the entire Br transferred to the Chief of Army Equip & Comd of Repl Army early in 1941.)	General budget matters, including wartime budget; Calculation of wartime financial requirements; Appropriation Act matters; Supervision of cash accounting and auditing; Drafted Comments by Financial Controlling Court of the Reich; Pay and travel and moving allowances.
<u>Field Manual Admin Sec</u>	FM and other printed regulations to troops; Maintenance of mandatory stocks; Printing budget; Calculation of FM printing requirements; Reprints; Administration and dispatch of printed regulations; Editing and publication of the Army Regulations Bulletin and the Army General Information Bulletin.
<u>Chief Clerk w/Chief of Army Equip & Comd of Repl Army</u>	Main Office routine; Dispatch of official mail; Message Center; Procurement and administration of office supplies; Reception and general office.
<u>Courier Center</u>	Acceptance and transmittal of classified correspondence; Courier service to military agencies in the Zone of Interior and the Field Army.

Table 1--GENERAL ARMY OFFICE--continued

Responsibilities of Branches,
Excluding Arms and Services Branches
(Described in Appendix B)

<u>Branch</u>	<u>Responsibilities</u>
<u>Army Judge Advocate Branch</u> ¹	Army legal service; Personnel files and technical supervision of personnel; Assistance in the forming of Army legislature; Maintenance of uniformity in the administration of justice; Legal advice to Army High Command; Review of sentences imposed by courts-martial of the Field Army and Replacement Army; Special incidents; Investigation of suicides; Crime statistics; Problems of pardoning procedure; Pardon matters of the courts-martial of the Field Army and the Replacement Army; Crime records affairs.
<u>Recruiting and Replacement Branch</u> ²	Recruiting and replacement affairs; Records of draftees until accepted for military service; Assignment of personnel with "inactive status" recalled for military duty; Recruiting and replacement organization, maintenance of service records; Distribution of available manpower for national defense; Awarding of indispensability status; Statistical data on overall population and men liable for military service; Interpreter problems.

¹Controlled by the Group for Replacement and General Army Matters.

²Ibid.

Table 1--GENERAL ARMY OFFICE--continued

Responsibilities of Branches,
Excluding Arms and Services Branches
(Described in Appendix B)

<u>Branch</u>	<u>Responsibilities</u>
<u>Branch for Army Matters</u> (Redesignated "Branch for General Troop Matters" in about 1942.) Controlled Army Music Schools in Frankfurt am Main and Buekkeburg; Bandmaster Candidate Courses in Berlin.	General service problems; NCO replacements; Disciplinary matters, promotions, furlough for enlisted men; Transfers, detachments; Induction and discharge of enlisted men; Supervision of authorized and actual strength of units; Personnel transfers from Field Army to Replacement Army; Allocation of replacements; Troop welfare and recreation, including musical entertainment; Leave and reconvalescence centers; Military posts matters; Special events; Army public relations; Wartime personnel rosters; Personnel Identification papers; Regulations; Army land settlement affairs; Maintenance of military traditions; Flags; Army museums.
<u>Penal Section</u> (Transferred to Branch for Army Matters in 1941.) Controlled Military Prisons.	Regulations on penal battalions and the execution of sentences; Organization and operation of Wehrmacht prisons and penal battalions; Activation of Wehrmacht penal battalions; Matters concerning sentenced prisoners, prisoners awaiting trial and enlisted personnel in penal battalions.
<u>Chaplain Section</u>	Organization of religious services in the Wehrmacht; Regulations for Protestant and Roman Catholic religious services; Personnel affairs of the Chaplain Service; Assignment of chaplains.

Table 1--GENERAL ARMY OFFICE--continued

Responsibilities of Branches,
Excluding Arms and Services Branches
(Described in Appendix B)

<u>Branch</u>	<u>Responsibilities</u>
<u>Branch for Billets and Maneuver Areas</u> (Discontinued at the outbreak of war but re-established in the winter of 1939-1940.)	Utilization of military real estate; Organization and development of maneuver areas; Range practice scheduling; Rentals; Maintenance of roads and billets; Planning and distribution of military posts; Construction materials for Army structures and maneuver areas; Control of the Hq Comdt, Bendler Block (Army High Command premises in Berlin) who, until 1941 had been under the control of the Group for Replacements and General Troop Matters.
<u>Clothing Branch</u> (Discontinued in late 1943.) Controlled Army Clothing Depots.	Development of clothing and personnel equipment for enlisted personnel; Calculation of raw material requirements and requisitioning of same from Army Administration Office. Procurement of clothing according to raw material allocations, as follows: a. Requisitioning of raw materials through Army Admin Office and Wehrmacht Procurement Office; Production of clothing in Clothing Depots, or b. Requisitioning of specific finished products through Army Admin Office and Wehrmacht Procurement Office; Administration and storage of stocks in the Clothing Depots.

Table 1--GENERAL ARMY OFFICE--continued

Responsibilities of Branches,
Excluding Arms and Services Branches
(Described in Appendix B)

<u>Branch</u>	<u>Responsibilities</u>
<u>Ordnance Inspectorate</u> Controlled Ordnance Depots; Army Schools for Armorer- Artificer Officials; Army Schools for Technical Ordnance NCOs. (Under the Chief Ordnance Officer, responsible directly to the Chief of Army Equipment and Comd of the Replacement Army.)	Weapons, ammunition and equipment supplies to the Army (for this purpose the Inspectorate organized and controlled the various ordnance depots); Acceptance of weapons and equipment and preparation of same for issue to troops; Administration of stocks; Outfitting of units be- ing activated, reorganized or re- habilitated; Procurement of stocks for resupply service; Repair of arms and equipment; Storage of powder and other explosives; Preparation and packaging of ammunition; Recondition- ing of used cartridges and shell cases and packing material; Ammuni- tion issue to troop units; Dismantling of discarded ammunition, weapons and equipment; Collection of captured weapons, equipment and ammunition and reconversion for use by German Army; Supply of weapons equipment and ammunition intended for sale; Train- ing of specialized personnel, such as ordnance officers, technical and maintenance sergeant armorer- artificers.

Table 1--GENERAL ARMY OFFICE--continued

Responsibilities of Branches,
Excluding Arms and Services Branches
(Described in Appendix B)

<u>Branch</u>	<u>Responsibilities</u>
<u>Inspectorate for Army Technology</u> (Discontinued in 1942.) Controlled Technical College for Officers.	Organization of the Technological Officer Corps; Training of personnel for the Corps and for employment in the Army Admin Office as Army Technological Officials. Personnel files of technological officers and officials; Industrial police supervision over Army workshops of all types; Investigation of accidents and claims for personal and property damage. Supervision of hand and machine tools in permanently located Army workshops, such as ordnance shops, motor vehicle maintenance shops.

matters concerning men liable to military service, either prior to their enlistment or after their discharge from active service, were handled by the Replacement Branch, while all matters concerning them during their military service were handled by the Branch for Army Affairs, later designated the Branch for General Troop Matters. This distribution of functions remained unchanged throughout the war.

The organization of the Group for Replacements and General Troop Matters and the changes it underwent during the war are shown in Charts 1-3. The more important functions of its branches are shown in Table 1.

(1) The Replacement Branch directed the replacement matters of all the armed forces, so that in most of its activities it performed Wehrmacht functions under directives from the Wehrmacht High Command. These directives were prepared by the Organization Branch of the Wehrmacht Operations Staff under instructions from the Chief of the Wehrmacht High Command, who issued them to the Chief of the General Army Office personally, so that the latter was directly concerned with replacement matters. It was for this reason that the Chief of the General Army Office was appointed also Chief of the Conscription and Recruiting Office, in which position he was responsible directly to the Chief of the Wehrmacht High Command. This change was made when the Conscription and Recruiting Office was established in 1943, but did not involve a change in the organization or working procedures of the General Army Office which now served simultaneously as a Conscription and Recruiting Office.

In June 1944 the Conscription and Recruiting Office was separated from the General Army Office. At the same time the Replacement Branch was removed from the General Army Office and transferred to the Wehrmacht High Command. There it was given the status of an office and its chief was appointed chief of the new office.

The responsibilities of the Conscription and Recruiting Office and of the Replacement Branch have been described in MS # T-101, on the Wehrmacht High Command. Therefore only two facts need be pointed out here. The Replacement Branch had two main missions: the development and supervision of the organization which administered replacement matters, which organization consisted of local conscription and recruiting offices assigned to the several corps area headquarters (Wehrkreiskommandos); and the compilation and dissemination of fundamental laws, directives, and regulations governing the routine of personnel procurement; the centralized control of all replacement procuring activities, which included the registration, examination, and drafting of recruits and their allocation to the three branches of the armed forces and to the arms and services of the Army. In the

execution of this mission the line of command extended through the several corps area headquarters, each of which handled conscription and recruiting in its own area and forwarded appropriate orders to the local conscription and recruiting offices it controlled; competition for manpower between the various top-level military and civilian authorities was increasingly severe. Controversies in this field, which have been treated also in MS # T-101, became more and more bitter during the war because of the lack of a pre-war basic legal arrangement and the weak position of the Chief of the Wehrmacht High Command. With a growing shortage in manpower, heated disputes and serious friction developed. During 1942-1944 particularly, almost all negotiations with appropriate authorities on behalf of the Chief of the Wehrmacht High Command were conducted by the Chief of the General Army Office, assisted by the Chief of the Replacement Branch. In these negotiations the Chief of the General Army Office quite rightly considered it his first duty to obtain the manpower replacements required by the armed forces, and particularly by the Army, the needs of which were by far the largest.

Final responsibility for materiel requirements of the Army rested with the Chief of Army Equipment and Commander of the Replacement Training Army; but, the Chief of the General Army Office, under the Wehrmacht High Command, was solely responsible for the personnel replacement system.

(2) The Branch for General Troop Matters handled all matters connected with the rights and duties of enlisted personnel while in the Army as well as all general matters arising from military service. The more important of its functions are listed in Table 1. A few of the problems which became particularly serious during the war will be discussed here.

The major problem was that of furlough. All furlough traffic had to be adapted to the current military and transportation situation and was regulated in close cooperation with the Organization Branch of the Army General Staff. The basic plan was that every soldier was to be granted recreational leave once each year. Furthermore, every newly-trained recruit in the Replacement Training Army was to be allowed a period of leave before transfer to the field forces. It was of vital importance to the food-producing industry that members of the Replacement Training Army should be granted leave for plowing and harvesting and for processing the sugar beet crop. Meeting this need called for careful management during the appropriate seasons of the year.

Next in importance was the general maintenance of discipline in the Army and the care of soldiers in transit. In these matters, the Branch for General Troop Matters cooperated closely with the Branch

for Army Matters (originally a branch of the Army General Staff but later attached to the Chief of the Wehrmacht High Command in his position as Deputy Commander in Chief of the Army) in the preparation and issue of basic directives. The implementation of these directives was a responsibility of the General for Special Assignments IV, whose activities will be described separately in the section on the Policy Group of the General Army Office (page 47).

Third in importance was the procurement of replacements for the noncommissioned officer corps. In the German army particular importance had always been attached to the maintenance of a carefully selected and well trained noncommissioned officer corps and events proved that the efforts directed toward this end had been well spent. In this field the Branch for General Troop Matters cooperated closely with the Inspector of Army Training and Education and later with the Inspector General for Potential Officers and NCOs, who was assigned to the Chief of Army Equipment and Commander of the Replacement Training Army. The latter supervised the training and, during the closing years of the war, the procurement of NCOs.

The deactivation of the Sixth Army, which was lost at Stalingrad, is a striking example of how entirely new problems for the Branch for General Troop Matters developed with particular frequency. After the loss of this Army a special Sixth Army Deactivation Staff was organized and placed under the General Army Office, where it was to work under the direction of the Branch for General Troop Matters. The staff was to investigate the fate of each individual member of the Sixth Army and to inform his family. In addition, it was to wind up all the personnel affairs of that Army, such as promotions, decorations, and pending legal action. Special deactivation sections were established at all corps area headquarters for the purpose; through the information gathered from numerous sources in this way, the mission of the deactivation staff was almost completely accomplished. After the surrender of Rommel's forces in Tunisia, a similar deactivation staff was established to handle the affairs of the units lost there.

(3) The Army Penal Section, originally an independent section, was assigned to the Group for Replacements and General Troop Matters during the war. This section supervised the enforcement of court sentences and controlled all military prisons and penal units.

(4) The Chaplain Section continued to function as an independent section under the Group for Replacements and General Troop Matters. It was responsible for all organizational and personnel matters in the Army Chaplain Service. Religious matters as such were a responsibility of the field bishops, who were under the immediate control of the Commander in Chief of the Army and whose representatives

maintained liaison with the Group for Replacements and General Troop Matters.

(5) The Branch for Billets and Maneuver Areas and the Army Clothing Branch, which also was under the Group for Replacements and General Troop Matters during the early phases of the war, will be discussed in a later section.

(6) In addition to the branches listed under the above five groups, the headquarters battalion of the Chief of Army Equipment and Commander of the Replacement Training Army was placed under the control of the Group for Replacements and General Troop Matters. All enlisted personnel in the various Army High Command agencies in Berlin were grouped into companies and assigned to this battalion. Also in this battalion were the interpreter instruction and training companies, whose activities were directed by the Replacement Branch.

During the war the Army Affairs Branch was redesignated the Branch for General Troop Matters. It will be referred to as such hereafter, and should be distinguished from the Branch for Army Matters, which was a branch of the Army General Staff and was later transferred to the Chief of the Wehrmacht High Command. Correspondingly, the Group for Replacements and Army Affairs was redesignated the Group for Replacements and General Troop Matters. These changes in no way affected the organization or responsibilities of the group or branch.

b. The Judge Advocate Branch was the law agency of the Army High Command. At the beginning of the war, the Chief of the Judge Advocate Branch was simultaneously Army Judge Advocate. In this latter capacity he was subordinate to the Chief of Army Equipment and Commander of the Replacement Training Army and was the technical superior of all law officials in the Army. He also handled all such matters as the assignment, training, and promotion of personnel in the army legal services. For this purpose he had at his disposal the Judge Advocate Branch. As a subdivision of the General Army Office, the Judge Advocate Branch was concerned chiefly with legislative activities of the Army High Command, the development and administration of military law, and the maintenance of a uniform system of justice. In addition, the branch advised the several agencies of the Army High Command in all legal matters and reported on all happenings in the Army from the viewpoint of jurisprudence.

Cooperation between the Judge Advocate Branch and the Group for Replacements and General Troop Matters was particularly close. For example, the branch was consulted on questions concerning the disciplinary code and complaint procedures, although they involved matters of general military discipline and military authority rather than court

necessary organizational measures, these units were able to use the training grounds for combined arms maneuvers and for firing practice under simulated battle conditions.

For the foregoing reasons and because of the necessity of improving existing areas in line with recent experience, it was realized as early as in the autumn of 1939 that an agency would have to be reestablished in the General Army Office to handle the problem involved. As had been the case prior to the war, the new branch was placed under the Group for Replacements and General Troop Matters. Although the responsibilities of the new branch were little related to the other activities of the group, this arrangement remained unchanged until the end of the war.

The responsibilities of the Branch for Billets and Maneuver Areas are shown in Table 1. This branch was concerned chiefly with maneuver areas, garrison post training grounds, firing ranges, and weapons testing grounds. Its other activities included planning for the construction of various army installations, such as ordnance depots. The construction of barracks was suspended and plans for future peacetime billeting did not progress beyond the theoretical stage. However, new schools had to be built during the war and the branch had to do the necessary planning. As had been the case during peace, the actual construction of installations and their administration were a responsibility of the Army Administration Office, with which the Branch for Billets and Maneuver Areas cooperated closely.

For the sake of completeness, the Bendler Block Headquarters Commandant Section must be mentioned. This section was responsible for the military supervision of the Army High Command premises in Bendler Street, Berlin. Originally it worked independently within the Group for Replacements and General Troop Matters, but later it was absorbed by the Branch for Billets and Maneuver Areas.

4. The Ordnance Inspectorate and the Army Clothing Branch.

a. The Ordnance Inspectorate. This inspectorate was responsible for the processing and administration of all weapons, equipment, and ammunition from the moment the manufactured items or parts were accepted from private industry to the time they were issued to troops or shipped to the field forces. The inspectorate was responsible also for the repair of all German materiel, for the registration and sorting of captured materiel, and for the repair and adaptation of any such items that could be used by German forces.

proceedings, and therefore responsibility for them rested with the Branch for General Troop Matters rather than with the Judge Advocate Branch.

In the course of the war all agencies of the Army High Command and of the Replacement Training Army which handled legal matters were consolidated under a newly established Judge Advocate General Group. The chief of the new group assumed responsibility as Army Judge Advocate General, so that the Judge Advocate Branch now was under his control as well as under that of the General Army Office. Moreover, since the chief of the new group controlled the Field Legal Administration Branch as a part of his group, he was responsible to the Chief of the Wehrmacht High Command as well as to the Chief of Army Equipment and Commander of the Replacement Training Army, as shown in Chart 6.

3. The Branch for Billets and Maneuver Areas. Prior to the war all billeting problems with which the General Army Office was concerned were dealt with by the Group for Replacements and General Troop Matters. These problems arose in connection chiefly with plans for billets and installations for the peacetime Army during its period of expansion and with the assignment of garrison posts and casernes to individual units. In addition, plans had to be prepared for the construction of premises for new army installations, such as ordnance, ration, and clothing depots and ammunition dumps, as well as for the expansion of existing maneuver areas and the acquisition of new ones to meet the requirements of the growing Army.

Formerly the Billets and Maneuver Areas Section of the Branch for General Troop Matters within the Group for Replacements and General Troop Matters had dealt with these problems. The Mobilization Plan contained no provisions for the continued existence of this section, probably because it was assumed that building activities would cease in the event of war. Furthermore, billeting was provided for the Replacement Army in the Mobilization Plan. It was soon found, however, that the expansion of existing and acquisition of new maneuver areas were matters of extreme importance during war. After the Polish Campaign, new terrain had to be secured for these purposes immediately in the newly acquired eastern territories. An opportunity presented itself here to obtain, and develop for the future, peacetime army maneuver areas large enough to meet the requirements of modern training activities, particularly for mobile units, in the light of recent battle experience. Most of the areas within the former borders of Germany were too small for these purposes and only a few of them could have been expanded. The importance of existing maneuver areas also grew during the war, since it was possible to use them as billeting areas for newly organized units and for units undergoing rehabilitation or reorganization. While carrying out the

necessary organizational measures, these units were able to use the training grounds for combined arms maneuvers and for firing practice under simulated battle conditions.

For the foregoing reasons and because of the necessity of improving existing areas in line with recent experience, it was realized as early as in the autumn of 1939 that an agency would have to be reestablished in the General Army Office to handle the problem involved. As had been the case prior to the war, the new branch was placed under the Group for Replacements and General Troop Matters. Although the responsibilities of the new branch were little related to the other activities of the group, this arrangement remained unchanged until the end of the war.

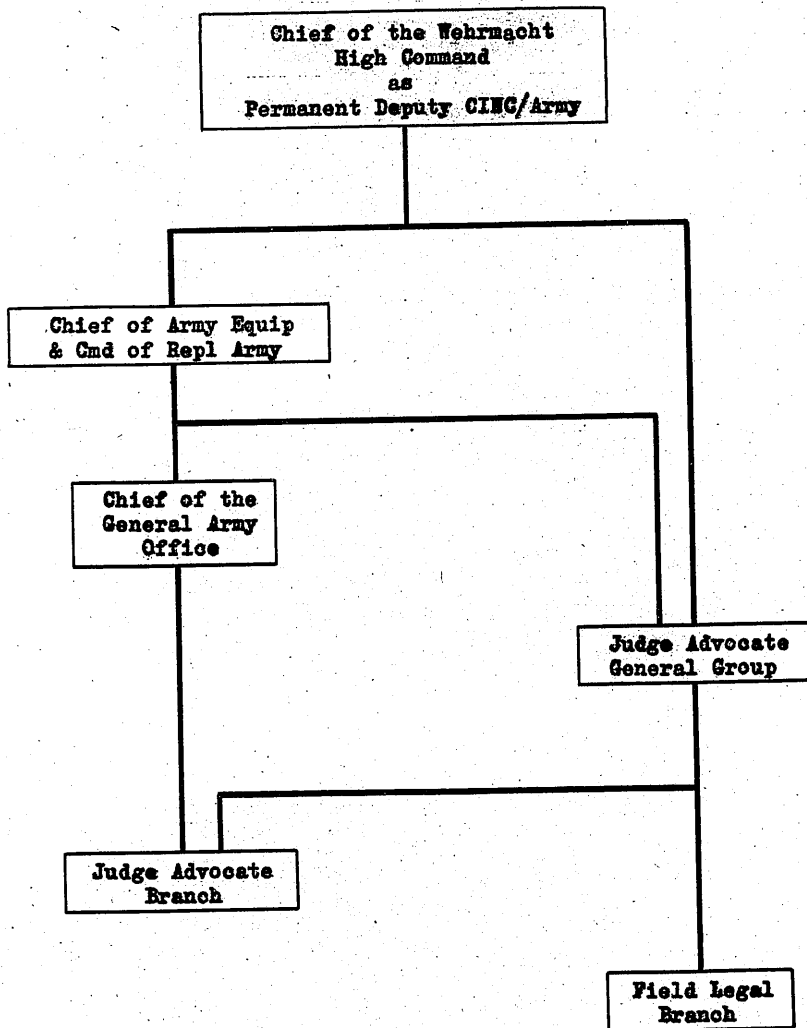
The responsibilities of the Branch for Billets and Maneuver Areas are shown in Table 1. This branch was concerned chiefly with maneuver areas, garrison post training grounds, firing ranges, and weapons testing grounds. Its other activities included planning for the construction of various army installations, such as ordnance depots. The construction of barracks was suspended and plans for future peacetime billeting did not progress beyond the theoretical stage. However, new schools had to be built during the war and the branch had to do the necessary planning. As had been the case during peace, the actual construction of installations and their administration were a responsibility of the Army Administration Office, with which the Branch for Billets and Maneuver Areas cooperated closely.

For the sake of completeness, the Bendler Block Headquarters Commandant Section must be mentioned. This section was responsible for the military supervision of the Army High Command premises in Bendler Street, Berlin. Originally it worked independently within the Group for Replacements and General Troop Matters, but later it was absorbed by the Branch for Billets and Maneuver Areas.

4. The Ordnance Inspectorate and the Army Clothing Branch.

a. The Ordnance Inspectorate. This inspectorate was responsible for the processing and administration of all weapons, equipment, and ammunition from the moment the manufactured items or parts were accepted from private industry to the time they were issued to troops or shipped to the field forces. The inspectorate was responsible also for the repair of all German materiel, for the registration and sorting of captured materiel, and for the repair and adaptation of any such items that could be used by German forces.

GENERAL ARMY OFFICE
CHAIN OF COMMAND
ARMY JUDGE ADVOCATE BRANCH



The entire ordnance service was headed by the Chief Ordnance Officer, later designated Chief Army Ordnance Officer, who was subordinate during the war to the Chief of Army Equipment and Commander of the Replacement Training Army. Under a chief of staff, the Ordnance Inspectorate served him as a working staff. The Inspectorate was also a branch of the General Army Office, from which it received basic directives and instructions.

The responsibilities of the Ordnance Inspectorate, the essentials of which are shown in Table 1, included: organization of the ordnance service; weapons and equipment; ammunition; specialized ordnance personnel.

An ordnance headquarters in every corps area controlled a varying number of army equipment depots (usually one or two) and branch army equipment depots (usually three to six), as well as a varying number of army ammunition depots (usually two to five) and a widely varying number of branch army ammunition depots. Each ordnance headquarters was responsible directly to the Chief Army Ordnance Officer, who employed a number of ordnance inspectors to keep them and the installations they controlled under constant supervision.

In 1944 the ordnance headquarters were placed under the full control of the respective corps area headquarters which hitherto had exercised only regional authority over them in respect to such matters as billeting, official travel, and communications. This new arrangement did not prove satisfactory. The very nature of the ordnance service, which required constant exchanges and stock equalizations between ordnance headquarters, called for a firm central control. Only an army which has such ample supplies of materiel that every ordnance headquarters can hold adequate stocks of all types of weapons, equipment, and ammunition available in its installations can afford a decentralization of control. The German Army was far from being in such a position during the war.

As previously stated, the Ordnance Inspectorate was responsible for weapons and equipment from the moment materiel was accepted from the manufacturers to the moment it was issued to troops or shipped on supply trains. During this period the individual pieces and parts of items of equipment supplied by the industry had to be so assembled and, if necessary, packaged, that they were ready for troop use. All necessary spare parts and accessories had to be placed with the item to which they belonged. In the case of a machine gun, for instance, the jacket, barrel, stock, bolt assembly, sights, cartridge belts, ammunition boxes, tools, and carrying equipment came separately from various armament firms. Before delivery to the troops they had to be assembled, checked, and adjusted. All firearms had to be centered

and numerous items had to be assembled in equipment packages as required by units of various types. Complete initial equipment outfits had to be assembled for issue to these units during their initial activation, rehabilitation, or organization. All materiel not intended for immediate issue had to be sorted for proper storage.

All of this work was done by the ordnance headquarters and by the armories and branch army supply depots they controlled, under the guidance of the Ordnance Inspectorate. In addition, damaged weapons and equipment which the troops were unable to repair had to be repaired in the armories, which sometimes had even to produce new parts in their own workshops for the purpose. These workshops also carried out alterations to weapons and equipment on the basis of field experience.

There were special panzer ordnance headquarters for the armored forces as well as a special signal ordnance headquarters for the handling of signal equipment.

With respect to ammunition, the functions of the Ordnance Inspectorate were similar. Here the actual processing was done in the ammunition depots and branch ammunition depots, which stored shell cases, heads, and powder and other explosives. The ammunition was prepared for firing and assembled in authorized issues for new units or for resupply to units in the field in accordance with current and anticipated requirements. Captured ammunition and German ammunition no longer in use was dismantled and salvaged.

With respect to weapons, equipment, and ammunition the value of the overall organization of the ordnance service lay in the fact that it established a short command and message channel from the General Army Office through the Ordnance Inspectorate to the ordnance executive agencies. This situation permitted a constant check on current stocks and a flexibility in meeting the requirements of the General Army Office and the Army General Staff. The scarcer materials became, the more necessary this system proved to be. Experience proved repeatedly that the office responsible for organizational missions--in this instance the General Army Office--must have full control of all materiel and manpower resources. The close contact maintained within the General Army Office between the Ordnance Inspectorate and the arms and services branches offered the best guarantee that materiel would be supplied to the troops in the quantity and condition most appropriate for immediate use. On the other hand, it was to the Ordnance Inspectorate's advantage to have the use of personnel, installations, and other help which the General Army Office could furnish.

The assignment of the Ordnance Inspectorate to the General Army Office and the organization of the inspectorate itself proved satisfactory in every respect. With a relatively small staff, the inspectorate and the installations it controlled performed their functions excellently right up to the end of the war. This had to be admitted even by the numerous commissions appointed to examine the ordnance service system for the purpose of uncovering flaws and inadequacies. Friction and delays in the later stages of the war did not stem from inadequacies in the organization or methods of the inspectorate but rather from shortages and difficulties which developed in all fields as a result of the length and unfavorable course of the war.

As pointed out already, the assignment of the ordnance headquarters to the several corps area headquarters impaired rather than improved the efficiency of the ordnance services. In 1945 a further reorganization was ordered, in the course of which all responsibility for the processing of ammunition was to be removed from the Ordnance Inspectorate and transferred to the newly appointed Chief of Wehrmacht Equipment. This step was in line with the general tendency to place more authority in the hands of the Wehrmacht High Command, but it did not come into full effect before the end of the war. It probably would have proved harmful, since ammunition matters were so closely linked with the entire ordnance field that their separation could not have been other than disadvantageous. It would have been more logical to transfer the entire Ordnance Inspectorate to the Wehrmacht High Command, but such a step would have had severely adverse effects on all organizational work in the army.

In the personnel field, item (4), above, the Ordnance Inspectorate was responsible for the selection, training, and supervision of its specialized personnel. Ordnance personnel included army ordnance officers; ordnance technical officials, who were given officer status during the war; armorer-artificer officials, with grade equivalent to second lieutenant; and ordnance noncommissioned officers, including ordnance and maintenance technical sergeants. This last category was discontinued during the war.

Appointments and promotions of ordnance officers were handled by the Army Personnel Office, of technical officials by the Branch for Army Technology and later by the Army Administration Office, and of armorer-artificer officials by the Army Administration Office. However, all appointments and promotions were made in accordance with the suggestions of the Chief Army Ordnance Officer, who was the technical superior of all other ordnance personnel.

Ordnance noncommissioned officers were supervised by the Ordnance Inspectorate exclusively and were trained in the armorer-artificer and ordnance noncommissioned officer schools under the direct control of the Chief Army Ordnance Officer. Although the courses were shortened during the war, the training given in these schools and during service in the ordnance installations proved entirely satisfactory.

b. The Clothing Branch. Clothing and personal equipment are the third item, after general equipment and ammunition, in the materiel requirements of an army. For a long time clothing and personal equipment had been handled by paymasters and other uniformed army officials in all field units both above and below division level, and at Army High Command level they were the concern of the Army Administration Office. But in view of the fact that clothing and personal equipment requirements are governed largely by the organization, training, and purpose of the units concerned and are therefore an organizational rather than an administrative concern, the Army Clothing Branch was transferred, a few years before the war, from the Army Administration Office to the General Army Office. Here, the branch was placed initially within the Group for Replacements and General Troop Matters. However, since its activities were in no way related to the other activities of the Group for Replacements and General Army Matters, the branch was separated from the group early in the war and placed under the direct control of the Chief of the General Army Office.

The responsibilities of the Clothing Branch, described in Table 1 included the designing, the procurement, in some cases the production, and the storage of clothing and items of personal equipment, together with their distribution to the troops and resupply to units in the field. These functions were performed by Clothing Offices controlled by the branch. The allocation of raw materials, cloth, leather, and certain finished products was the responsibility of the Army Administration Office and the Wehrmacht Procurement Office, but the textiles and leather were manufactured into articles of clothing in the clothing offices.

Late in 1943 the Clothing Branch was discontinued, chiefly because it was unable to overcome the difficulties arising from the damage inflicted upon its installations, the clothing offices, during air raids. It now had to depend on practical assistance from the far more widely ramified organization of the ordnance services. All clothing offices were placed therefore under the Ordnance Inspectorate, which thereby assumed responsibility for the production, storage, administration, and issue of the items involved. Simultaneously, Branch Ib of the Policy Group of the General Army Office assumed responsibility for designing and planning activities and for the allocation of clothing and personal equipment. The control of clothing

and personal equipment was now exercised in the same manner as that of all other materiel of the Army, the only differences being that development was handled by a branch of the Policy Group instead of by an arms or service branch and procurement was handled by the Army Administration Office instead of by the Army Ordnance Office.

From the viewpoint of organization, the new arrangement seemed sound. However, all responsibility for clothing and personal equipment was again transferred to the Army Administration Office in 1944, before the new plan had a real trial. The only way in which the General Army Office remained linked with this field of activities was that Branch Ib of the Policy Group was required to cooperate with the Army Administration Office in development and construction problems.

5. The Arms and Services Inspectorates and the General Army Office. A feature common to all arms and services branches was that their respective missions covered three major fields of activity: (a) the organization and training activities within the arms and services they controlled; (b) the establishment of development and procurement specifications for specific types of weapons, equipment, and ammunition; and (c) special subjects more or less restricted to specific arms or services. The relative importance of these fields varied among branches. In the majority of the arms branches, main emphasis was on organization and training and the development and procurement of weapons, equipment, and ammunition. In other branches special subjects played a major and in some cases an almost exclusive role. But in spite of these differences, the organization, chain of command, and working procedures were very similar in all branches, and for that reason the arms and services branches were regarded collectively.

Before discussing the missions of the branches in greater detail, it seems appropriate to explain briefly the wartime development of the branches themselves.

Prior to the war each arm and service had as its chief representative at the Army High Command an inspector, who was responsible directly to the Commander in Chief of the Army. As a working staff each inspector had an inspectorate under a chief of staff. Each inspectorate was simultaneously a branch of the General Army Office and its chief of staff was simultaneously chief of this branch. This organization corresponded roughly with that of the Ordnance Inspectorate, which was controlled by the Chief Army Ordnance Officer as described in the foregoing section.

Both the General Army Office and the inspectors participated in the inspectorate activities described in item (a), page 38. The activities listed under item (b) concerned the General Army Office alone. In these activities the inspectorates functioned exclusively as branches of the General Army Office, but in the activities listed under item (c) the status of the inspectorates varied.

At the time of mobilization, the status of the inspectors was changed. They were placed under the Chief of Army Equipment and Commander of the Replacement Training Army and acted as his agents in supervising training activities in the Replacement Training Army. Thus they no longer controlled the inspectorates, which now served exclusively as branches of the General Army Office, each under a branch chief who formerly had been the chief of staff in the inspectorate, and they now performed all three of their missions under the General Army Office. The only remaining link between the inspectors and the arms and services branches was that the inspectors had to rely on the branches for the performance of the normal routine office work incidental to the inspectors' new missions.

The Fortifications, the Medical, and the Veterinary Inspectorates were exceptions to this arrangement. At the time of mobilization, the inspectors controlling these three inspectorates were placed also under the Chief of Army Equipment and Commander of the Replacement Training Army, but their peacetime status and missions remained unchanged and they continued to control their respective inspectorates. Consequently they retained their designation as inspectorates and the three branch chiefs involved served as their chiefs of staff. The Branch for Army Technology also remained an inspectorate under an inspector, but he was placed under the Chief of the General Army Office. On the whole, the missions of the Branch for Army Technology were similar only in certain respects to the missions of the other arms and services branches, as described on page 40.

The fact that the arms and services branches in the General Army Office were referred to as "In #.." was now the only reminder of their former status as inspectorates.

The numbering of the various inspectorates, which simultaneously were branches of the General Army Office, will now be described briefly.

There was no Inspectorate 1, which was the former designation of the Training and Education Branch, later designated In EB (Erziehungs & Bildungswesen--Training and Education Matters). This branch was not controlled by the General Army Office but by the Chief of Army Equipment and Commander of the Replacement Training Army. At a still later date it was absorbed by the office of the Inspector General for the

Procurement of Potential Officers and NCOs. The numbering of the inspectorate therefore began with the number "2."

Inspectorate 2 was the Infantry Branch.

Inspectorate 3 had little in common with the other branches. It had been responsible originally for cavalry matters. It had been relieved of these responsibilities before the war and now handled mainly riding and driving matters for all arms and services of the Army as well as all other matters connected with horses, such as their procurement and distribution. Cavalry matters were transferred to Inspectorate 6, the Panzer Troops Branch, which later was given the designation Mobile Troops Branch. In 1943 cavalry matters were transferred to Inspectorate 2, the Infantry Branch, in exchange for motorized infantry matters. Particulars of this development will be found in Appendix B, pages 117 and 125.

The remaining branches were numbered as follows:

<u>Inspectorate #</u>	<u>Simultaneously</u>
4	Artillery Branch
5	Engineer Branch
6	Panzer Troops Branch
7	Signal Branch
8	Supply Transportation Branch
9	Chemical Warfare Branch
10	Rail Engineer Branch
11	Technical Troops Branch
12	Motor Transport Troops Branch
13	Army AAA Branch
14	Rocket Weapons (V-Weapons) Branch (in the planning stage). .

Appendix B lists the more important features of the functions which each branch performed in each of the three major fields of activity, showing their status at the time of mobilization, in the summer of 1940, the autumn of 1943, and in 1945. The matters which each arms or service branch handled for its arm or service will now be described briefly.

a. Organization and Training.

(1) Organization. This function included the overall organization and development of all units of the arm in question and the internal structure of its lower-level units (company and battery) and intermediate-level units (battalion and regiment)--specifically,

the composition of each unit according to grades and qualifications of personnel, and the weapons, equipment, and ammunition to be authorized. It produced, as end results, tables of organization and tables of equipment, prepared by the arms and services branches and declared valid and issued by the Tables of Organization Branch of Division V of the Policy Group after proper examination.

In executing major organizational missions assigned to the General Army Office, namely the organization of new units or the rehabilitation or reorganization of existing major units, the branches worked together, each safeguarding the needs of its units with respect to personnel and materiel. In protecting the interests of the units of its arm, each branch negotiated with the Policy Group concerning matters of overall organization, with the Army Personnel Office concerning officer replacements, with the Army Administration Office concerning the assignment of uniformed army officials, with the Group for Replacements and General Troop Matters concerning NCOs and other enlisted personnel, with Division Ib of the Policy Group and the Ordnance Inspectorate concerning weapons, equipment, and ammunition, and with the other appropriate branches of the General Army Office concerning the matters which those branches handled. The process was facilitated by close personal contact between appropriate personnel of the branches concerned even at the lowest levels.

Another important activity in the field of organization was the study of foreign armies and battle experience and the practical application of the lessons learned.

(2) Training. The General Army Office had no really important training mission during the war. In the entire training field it restricted its action to such matters as training periods, which affected the organizational missions of the office.

Uniformity of training activities in the Replacement Training Army was achieved through the staff of the Chief of Army Equipment and Commander of the Replacement Training Army. The arms branches adhered to the directives issued by that staff. After the appointment of a Chief of Training in the Replacement Training Army, the arms and services branches were required to serve him as working staffs and to follow his directives in the performance of their functions. In all matters of training and organization they were required also to act in agreement with the chiefs of arms and services, who had been newly appointed shortly after the beginning of the war and were attached to the Commander in Chief of the Army (later to the Chief of the Army General Staff) to protect the interests of all units in the field forces. In addition, they were required to serve the chiefs of arms and services in the drafting of regulations, directives, orders, and requisitions.

In order to remedy the duplication of channels which thus had developed during the war, an organization similar to that which had existed prior to the war was reintroduced in the autumn of 1944. Each arms and service branch now again had dual status as a branch of the General Army Office and an inspectorate. In the latter capacity, each branch was controlled by the chief of its arm or service, who was attached to the Army High Command.

b. Development and Procurement of Weapons, Equipment, and Ammunition. In these fields, one specific arms or service branch was responsible for each type of weapon, equipment, or ammunition. If a new type of weapon, article of equipment, or type of ammunition was to be developed, the responsible branch established the development specifications on the basis of battle experience, suggestions from field units, and orders from other agencies of the Army High Command. The requirements of other branches of the General Army Office and of outside agencies were also taken into consideration and correlated.

Trial models were ordered through the Army Ordnance Office and tested by the responsible branch. If the results were satisfactory, that branch issued orders for the introduction of the new item for use in the Army, calculated the quantities required, and drafted the necessary requisitions to be forwarded to the Army Ordnance Office. Certain items were procured directly by the branch concerned and not through the Army Ordnance Office.

Each branch was required to watch developments in hostile and other foreign armies and to evaluate and apply experience gained during the war so as to insure that weapons, equipment, and ammunition used in the German Army were up to date. The numerous problems which arose because of scarcity of raw materials cannot be discussed here.

c. Special Subjects. In this field the majority of the branches were required to supervise and train the specialized personnel for their respective arms and services. In the case of enlisted personnel, such as maintenance sergeants for the various arms, radio technicians, medical personnel, or farriers, each branch was responsible solely for the supervision of the specialist personnel of its specific arm or service, in collaboration with the Branch for Replacements and General Troop Matters. In the case of the supervision of other specialist officers, such as medical officers, veterinary officers, and after 1942 also technological officers, as well as in the case of technical officials, the medical and veterinary inspectors, as the highest technical superiors of their respective services, exercised a decisive influence in all personnel matters, the actual handling of which took place in the Medical and Veterinary Branches or Inspectorates. However, the assignment, promotion, and transfer of officers was

ordered by the Army Personnel Office, that of technical officials initially by the Branch for Army Technology and later by the Army Administration Office.

Of the remaining special subjects handled by the various arms and services branches only a few of the more important will be mentioned here.

In addition to their normal missions the Supply Transportation Branch (Inspectorate 8) handled the entire army postal service, and the Chemical Warfare Branch (Inspectorate 9) handled all matters of gas defense and passive air raid protection.

The Fortifications Branch, responsible primarily for all fortification problems, was assigned the growing responsibility for the direction of troops employed in the repair of damages caused by air raids. Late in the war this branch was assigned an arm of its own--namely, the Construction Engineers--to supervise.

The Medical and Veterinary Branches each had an extremely wide and highly important special field to cover, in comparison with which their duties in fields (a) and (b) (page 38) were relatively insignificant.

In the Cavalry Branch (Inspectorate 3), main emphasis shifted during the war to the procurement of remounts for the armed forces. This procurement included the regular remount service, namely, the purchase and training of colts; the purchase of older horses in axis or neutral countries; the requisitioning of horses within Germany; and the breeding of horses on army-owned farms. Inspectorate 3 organized purchasing commissions and installations for these purposes and supervised their activities.

The control of the motor transport service and the changes in the control system will be explained on page 46.

Some space now must be devoted to the army schools and demonstration and experimental units. These were the most important instruments available to the arms branches for testing and experimenting new things intended for introduction into the Army, such as new departures in organization and weapons, equipment in development stages, and new training and tactical principles. Furthermore, the schools and demonstration and experimental units were excellent instruments for the familiarization of troops with new weapons and the dissemination of new knowledge gained from practical experience.

All matters concerning schools and demonstration and experimental units were handled by the appropriate arms branches. At the beginning of the war they were controlled directly by the Chief of the General Army Office, from 1942 on by the Chief of Training in the Replacement Training Army, and after the autumn of 1944 by the appropriate chiefs of arms and services attached to the Army High Command.

Appendix A lists the schools available to the individual arms and services branches, together with the arms and services for which the branches were responsible.

Elements of demonstration units were employed for temporary periods in the front line, either in units specially organized for the purpose or as GHQ units. In addition, frequent rotation of personnel insured that the schools and demonstration units always had on their rosters an adequate number of commissioned and noncommissioned officers with recent front line experience.

At this point it is necessary to describe in some detail the motor transportation and general motorization problems of the General Army Office. The problem of motor transportation decisively affected the planning and execution of all organizational projects. Shortages in this type of transportation were felt first and most acutely.

At the beginning of the war all motor transportation matters for the armed forces were handled by the Panzer Troops Branch (Inspectorate 6). The chief of this branch, General von Schell, was at the same time Reich Plenipotentiary for Motor Transportation under the Administration of the Four-Year Plan and Under Secretary of State for Motor Transportation in the Reich Ministry of Transportation. In addition to his functions for the armed forces, which he performed in accordance with directives from the Chief of the Wehrmacht High Command, the branch chief thus exercised extensive authority over the motor vehicle manufacturing industry, the motor vehicle repair industry, and all civilian motor vehicles operating within Germany, since he controlled all road transportation and was responsible for the registration of all available truck space.

After the Polish Campaign, the responsibility for motor transportation and general motorization matters was transferred from Inspectorate 6 to a newly established Branch for Army Motorization. At the same time a Group for Motor Transportation was formed. This group included, in addition to the new Branch for Army Motorization, Inspectorate 6, which now performed the specific functions of an arms branch for the panzer forces, and Inspectorate 8, the Supply Branch. The chief of Inspectorate 6 was made chief of the new group and was now responsible to the Chief of the Wehrmacht High Command in the

performance of functions for all the armed forces, to Field Marshal Goering in the exercise of his authority under the Administration of the Four-Year Plan, and to the Reich Minister of Transportation in performing his functions as an Under Secretary of State for transportation.

Within the new group, the Branch for Army Motorization, among its other activities, was responsible for two highly important fields, namely, the procurement and distribution of motor vehicles and the supervision of the motor maintenance services, which included the procurement of spare parts. In both of these fields the Chief of the Group for Motor Transportation had complete authority over all military and civilian resources because of his position as Reich Plenipotentiary for Motor Transportation. The extensive use made of this authority is illustrated by the measure taken in 1941, under which the motor vehicle maintenance service for the Russian Campaign was organized by the assignment of entire civilian firms to the military agencies of the motor transport parks.

Contrary to the otherwise sharply defined division of command authority between the field forces and the Replacement Training Army, the entire motor maintenance service of the field forces was controlled also by the Chief of the Group for Motor Transportation. A similar combination of civilian and military agencies existed in the Highway Transport Agency for the East (Strassentransportorganisation, commonly known as Stralo) established by General von Schell to control motor transportation in the occupied eastern territories. The staffs through which this agency worked were organized by the Branch for Army Motorization as military staffs and consisted of military personnel but were placed under the authority of the civilian commissioners governing those parts of the occupied eastern territories not within the zones of operations. However, in spite of measures to insure the fullest utilization of all available resources, difficulties arising from shortages continued and in the end the measures led to serious controversy between the military and civilian authorities.

For reasons beyond the control of the General Army Office, General von Schell was relieved of his responsibilities as Under Secretary of State, Plenipotentiary General for Motor Transportation, and Chief of the Group for Motor Transportation in September 1942. At the same time the Group for Motor Transportation was discontinued. The Panzer Troops Branch (Inspectorate 6) and the Supply Branch (Inspectorate 8) reverted to the direct control of the General Army Office as normal arms branches. A new position, Chief of Motorization, was established to control all motor transport and general motorization activities. As Chief of Wehrmacht Motorization, this officer was responsible to the Chief of the Wehrmacht High Command in handling

transportation matters for all the armed forces; as Chief of Army Motorization, he was responsible to the General Army Office; personally he was under the command of the Chief of Army Equipment and Commander of the Replacement Training Army, an arrangement similar to that explained in the section on the Chief Army Ordnance Officer.

The new Chief of Motorization was assigned the Branch for Army Motorization and this was divided into two separate branches. One branch handled motor maintenance activities, including the procurement of spare parts, under a Chief of Motor Maintenance; the original Army Motorization Branch, redesignated the Motor Transport Branch (Inspectorate 12), retained all other responsibilities it had handled hitherto and also assumed responsibility for the newly-established Motor Transport Troops arm. The new Chief of Motorization was also given civilian authority as Plenipotentiary for Motor Transportation under the Administration of the Four-Year Plan, but his powers were by no means as extensive as those of his predecessor had been.

In February 1943, the entire organization under the Chief of Motorization, hitherto an agency of the General Army Office which also performed functions for all the armed forces, was transferred to the control of the Wehrmacht High Command. The chief was designated Chief of Wehrmacht Motorization, although he continued to perform functions for the Army as Chief of Army Motorization within the General Army Office. His position was now very similar to that in which the Chief of the General Army Office had found himself after his appointment as Chief of the Conscription and Recruiting Office in addition to his duties as Chief of the General Army Office.

Of the two branches under the Chief of Motorization, the Motor Transport Branch remained a branch of the General Army Office; the Motor Maintenance Branch became a branch of the Wehrmacht High Command. Their responsibilities remained unchanged.

Not until 1 July 1944 was the dual status of the Chief of Motorization discontinued and a clear distinction made between the Chief of Wehrmacht Motorization and the Chief of Motor Maintenance on the one hand and the Army Chief Motor Transport Officer on the other. The Chief of Motorization and the Chief of Motor Maintenance now served as agents of the Wehrmacht High Command exclusively; the Motor Transport Branch remained within the General Army Office and served only as an arms branch. No new Chief of Army Motorization was appointed.

Finally, the Motor Transport Branch was given the character of an inspectorate and placed under the Chief Motor Transport Officer at Army High Command as Inspectorate 12. At the same time it continued to function within the General Army Office as a branch of that office.

During the entire war motor transportation proved the chief stumbling block for all agencies concerned with organizational work. Repeated attempts were made to solve the problem of effective top-level control. The various changes made are shown in Charts 13-15. But none of the methods tried was found satisfactory, since even the very best top-level organization could not make up for the lack of materiel.

The Army Technological Branch (Inspectorate T) was established shortly before the war simultaneously with the establishment of a corps of engineer officers. The responsibilities of this branch are listed in Table 1, page 26. It was established to insure that officer sections which could deal exclusively with engineering problems were included in all army command staffs. Its primary mission was the development of a corps of highly qualified and well-trained officers to fill these assignments. Officers were trained in the Technical College for Officers, for the motor transportation, machine construction, survey, chemical, constructional, and electrical engineering services.

Toward the end of 1942 the Motor Maintenance Service was established and all officers employed in motor maintenance were transferred to the officers corps of this new service. Since this was the largest group of officers in the Engineer Officers Corps, there was no longer any real need for this corps. The remaining engineer officers were transferred early in 1943 to the ordnance corps or to some other appropriate arm or service, and the Army Technological Branch ceased to exist.

IV. ORGANIZATION AND FUNCTIONS OF THE POLICY GROUP

If the Army, from the organizational viewpoint, is thought of as a living body, the branches of the General Army Office as described in the foregoing pages can be said to have furnished the elements (men, animals, and materiel) required by this body for its growth and maintenance; to have built up, developed, and maintained the organs (arms and services) of the body, and to have provided for the careful and uniform management of the elements through the activities of the Branch for General Troop Matters and the legal, medical, veterinary, and other sections. To continue the simile, these activities had to be so directed and coordinated that the several organs would function correlately and so that their rate of growth would correspond to the available supply of building elements. In short, a mind was needed to insure that the entire organism would become and remain a living, active body suited to its stated purpose. The mission of the Policy Group of the General Army Office was to serve as this guiding mind.

In performing its mission, therefore, the Policy Group was not restricted to supporting the Chief of the General Army Office in his efforts to coordinate the activities of all agencies of the office. It worked under its own authority. Acting for the Chief of Army Equipment and Commander of the Replacement Training Army, it actually drafted and issued all orders and directives concerning organizational matters. This authority was necessary, not alone because the smallest organizational change required the collaboration of a number of branches of the General Army Office, but also because the Policy Group alone was in position to judge the urgency of the several agencies' desires and requirements and the possibility of fulfilling them.

Accordingly, a basic directive was issued that within the areas of authority of the Chief of Army Equipment and Commander of the Replacement Training Army no unit of any type could be activated by any agency whatever except pursuant to an activation order issued by Division Ia of the Policy Group of the General Army Office. This principle was maintained without compromise with excellent results. It was the only way to prevent the indiscriminate activation of units by various agencies and the consequent squandering of manpower and materiel.

Within the areas controlled by the field forces the Organization Branch of the Army General Staff had the same function and the same principles were observed. The close contact between this branch and the Policy Group of the General Army Office, which existed throughout the war, provided the foundation for joint organizational planning within the Army High Command.

The organization of the Policy Group and the distribution of functions among its subdivisions, together with the changes which took place during the war, are shown in Charts 7-9d.

1. Status at the Time of Mobilization in 1939. The organization of the Policy Group in 1939, as shown in Chart 7, corresponded to the peacetime organization and was kept as simple as possible. Normally the orders of implementation governing the performance of the two major missions of the General Army Office--namely, the build-up of the peacetime army and preparations for mobilization--were issued once each year. They could be prepared thoroughly and well ahead of time, so only a small staff was necessary.

In addition, the Policy Group prepared the necessary data for organizational planning, for submission to the Commander in Chief of the Army by the Chief of the General Army Office, and assisted the

Chief in directing and supervising collaboration between the branches controlled by the office.

Prior to the war the amount of organizational work which would become necessary in the case of war was not clearly envisaged. For this reason the Army Mobilization Plan contained no provisions for an expansion of the Policy Group.

2. Status in Winter 1939-1940. The organization of the Policy Group in the winter of 1939-1940 is shown in Chart 8. This period has been chosen instead of the 1940 summer period in order to show the organization while the affairs of the Commander of the Replacement Training Army and of the General Army Office were handled jointly by one staff, as described on page 6. The chart also shows how the staff was divided later; namely, how all functions of the section for the Commander of the Replacement Training Army were taken over by the Commander in his new office.

By summer 1940 the first practical experience gained in the war had begun to take effect. Soon after the outbreak of the war the organization of new units commenced, introducing the period of ceaseless organizational work which was to last until the end of the war. The added workload is shown clearly by the growth of Division Ia.

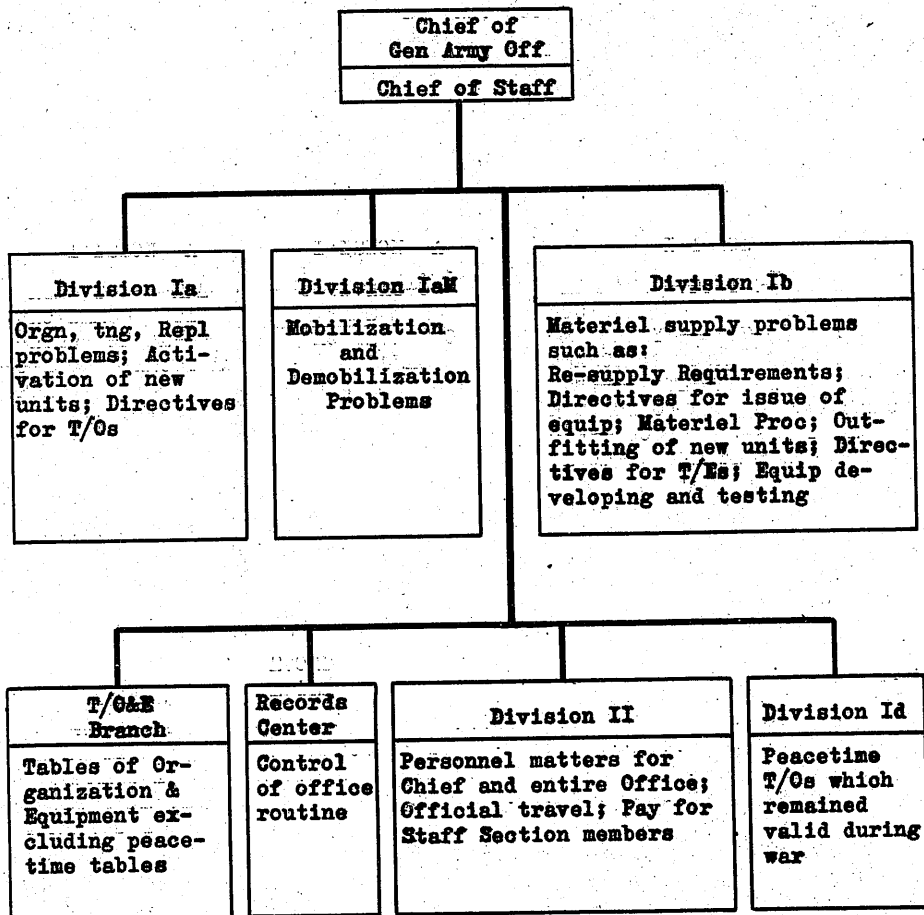
Attention is drawn to Sub-section III of the Section for the Commander of the Replacement Training Army. This Sub-section later developed into the Branch for Billets and Maneuver Areas in the General Army Office, which has been described on pages 19 and 31-32.

3. Status in Autumn 1943. The organization during this period, together with the distribution of functions, is shown in Chart 9. By this time the organization had been adapted to cope with the war-time missions of the group, and the form it had reached was satisfactory in every respect. The group was considerably larger than the comparative staffs of other offices of the Army High Command. In size and in the extent of its responsibilities it resembled a functional branch rather than the directing staff of an office. The advisability of creating an organizational branch within the General Army Office and retaining only a small directing group, as in other offices, was taken under consideration repeatedly. However, each time this plan was suggested it was rejected because the superior status of the Policy Group, which acted for and in the name of the Chief of the General Army Office, over the branches controlled by that office was an important factor in the centralized handling of all organizational work.

GENERAL ARMY OFFICE

September 1939

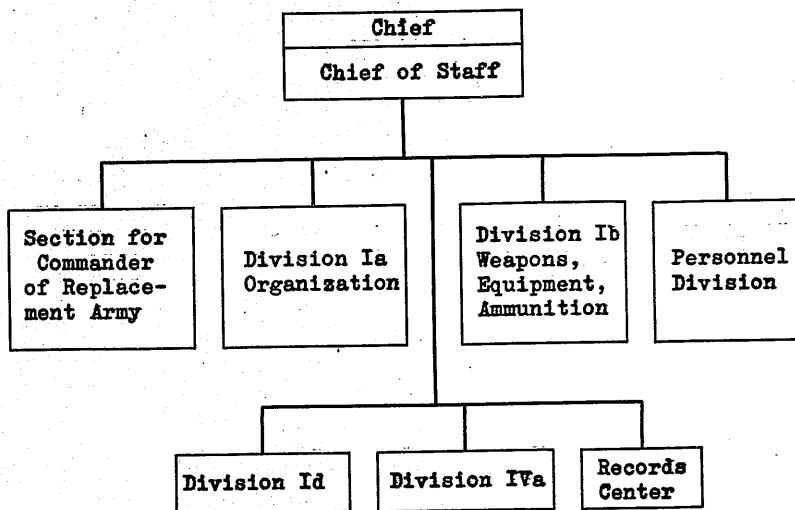
ORGANIZATION AND FUNCTIONS OF POLICY GROUP



GENERAL ARMY OFFICE

Winter 1939-1940

POLICY GROUP



It should be noted that the Policy Group of the General Army Office served simultaneously as the staff of the Commander of the Replacement Army and that the Chief of the Office was authorized to act on behalf of the Commander.

The distribution of functions among the various staff divisions and sections is shown on pages 52-53 of this chart.

GENERAL ARMY OFFICE

Policy Group

Section for the Commander
of the Replacement Army

Sub-Section I

Responsibilities:

Training in the Replacement Army; Organizational Experiments; Pre-Military Training

Sub-Section II

Responsibilities:

Matters of domestic politics (with Wehrmacht High Command and Chief of the Army Intelligence Group); Troop Education and Information

Sub-Section III

Development of training grounds and maneuver areas.

Division Ib

Section I

Responsibilities:

Initial issue of wpns, equip, ammunition to new field units and units of the Replacement Army; Organization of resupply for Field Army; Develop requirements for wpns equip, ammo; Control of Armament commission; Distribution of raw materials to army agencies

Section II

Responsibilities:

Production planning; Armament Statistics; Sales to foreign countries; Use of captured equipment

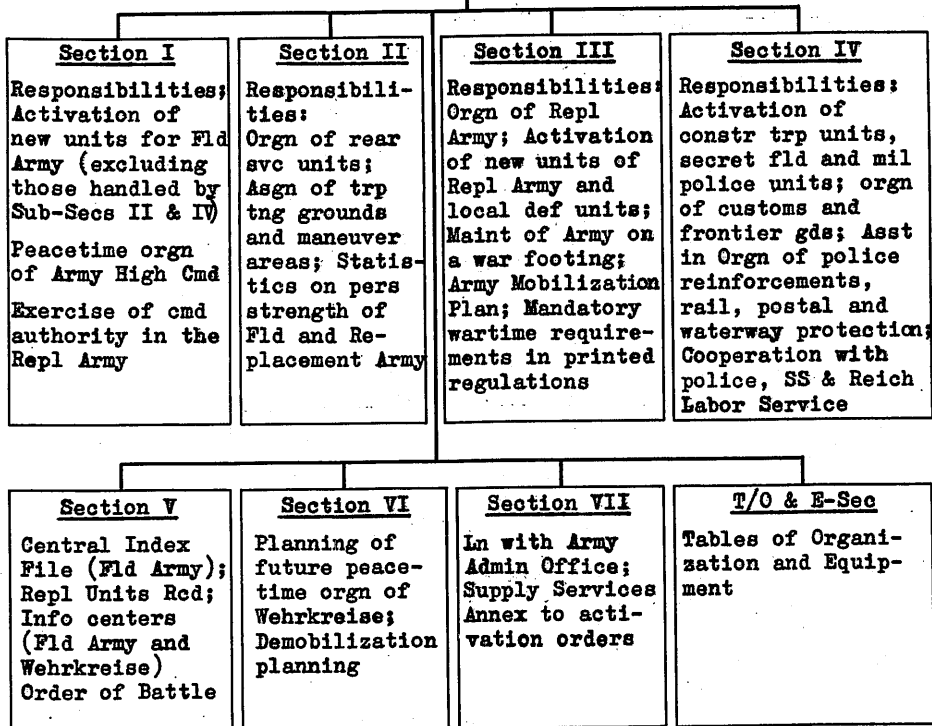
Section III

Maintenance of ammunition stock lists

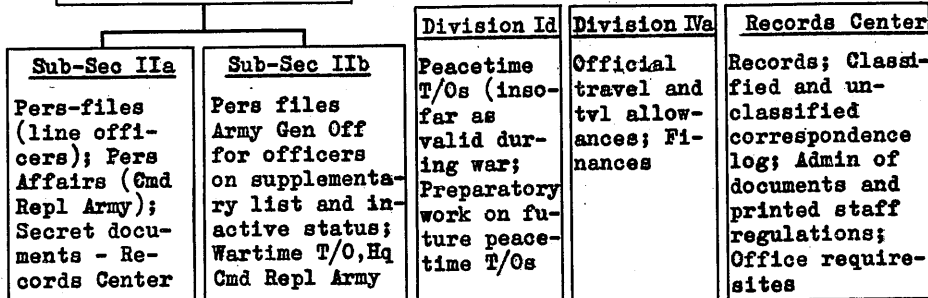
GENERAL ARMY OFFICE

Policy Group

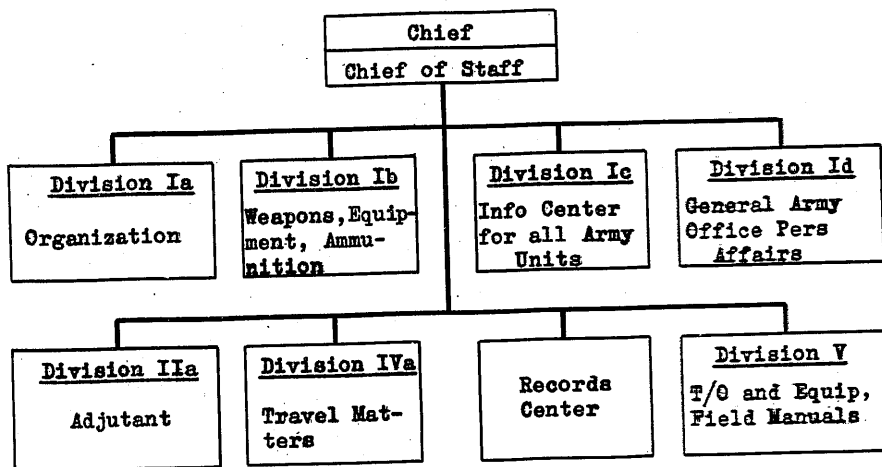
Division Ia
(Organization)



Personnel Division



GENERAL ARMY OFFICE
Autumn 1943
ORGANIZATION AND DISTRIBUTION OF FUNCTIONS



The following special staffs were attached to the General Army:

Special Staffs A & B

Inspected newly activated, reorganized and rehabilitated units to ascertain training and equipment status and stage of readiness for the field. Instructed the above units in the use of new types of weapons and equipment.

Special Staff for
Tropical Conditions
(Created in 1941)

Same responsibilities as Special Staffs A & B but only for units to be employed under tropical conditions. Advised on all tropical problems and assisted in appropriate training.

General for Special
Assignments IV
(Appointed in 1942)

Exercised disciplinary supervision over all transit personnel not within units; Organization and employment of Army patrols, rail depot guards, railway train patrols, Army welfare units and women's welfare auxiliaries. Supervision of all furlough and other transit traffic messes and welfare installations for personnel in transit.

GENERAL ARMY OFFICE

Autumn 1943

Organization and Distribution of Functions

Demobilization Branch

(Created in 1940)

Preparation of a Demobilization Plan. The branch was discontinued in 1942 after performing its mission.

The distribution of functions among the various branches and sections is shown on Charts 9b-d.

GENERAL ARMY OFFICE

Policy Group

Division Ia
Organization

Section I

Activation, re-organization & rehabilitation of units and command staffs for Field Army; Exercise of omd authority; Billeting and transfer of units in ZI

Section II

Activation, re-organization and rehabilitation of sub-units (excluding those handled by Sub-Secs III, IV, VII); Schools & demonstration units; National fortifications; Strength computations for war-time army

Section III

Local defense and convoy protection units; PW camps; Mil posts & their units; Air raid damage repair units

Section IV

Activation of secret field and military police units; Organization of customs and border guards; Cooperation with SS, Police, Reich Labor Service and customs offices; Organization of Technological units; Development of service branches

Section V

Liaison with Army Administrative Office; Asst in the activation of units in supply matters and through the assignment of Army officials

Section VI

Organization and activation of units consisting of foreign volunteers

Section VII

Orgn of the Repl Army; activation & reorganization of replacement & training units; Maintained Repl Unit Directory, showing the appropriate replacement unit of each field unit

Section VIII

Manpower control; Calculation of personnel requirements for all activation, reorganization & rehabilitation orders; Replacements for the Field Army; Records on the replacement situation; Personnel matters in agreement with Group for Replacement and General Troop Matters

GENERAL ARMY OFFICE

Policy Group

Division Ib

Section I

Planning for distribution of newly produced & repaired weapons & equipment; Drafting of sections of orders concerning arms & equipment for newly activated, reorganized or rehabilitated units; Directives for supply of arms & equipment to Replacement Army; Development requirements

Section II

Records of captured materiel; Directives concerning repair and alteration of captured materiel for use in German Army; Allocation of usable captured materiel (excl tanks and clothing); Supervision of sales to foreign countries according to orders by Wehrmacht High Command

Section III

Production Planning; directives for allocation of ammunition to new units, Replacement Army and for resupply purposes; Ammunition problems arising in the Section for the Command of Replacement Army

Section IV

Same subjects in respect to motor vehicles as handled by Sub-Section I in respect to weapons and equipment

Section VI

Supervision of trans of materiel for new, reorganized & rehabilitated units; Assignment of trans priorities; Requisitions to trans authorities concerning preferential handling of important trans-ports

Raw Materials
Section

Distribution to requisitioning sub-divisions of the General Army Office of raw materials allocated by the Chief of Army Equipment and Command of the Replacement Army

GENERAL ARMY OFFICE

Policy Group

Division Ic

Section I

Tables of Organization;
Card index on the entire wartime army;
Major and sub-units and staff identification number index

Section II

Situation Map; Records on the distribution of forces in the Zone of Interior

Section III

Basic Army personnel roster

Section IV

Information Center on staffs and units of wartime army; Preparation and distribution of Unit Location Directory

Division Id

Division I

Personnel files of officers of the General Army Office; Decorations and other awards for General Army Office personnel

Section II

T/Os for top-level agencies under the Chief of Army Equipment and Command of Replacement Army

Division V

T/O&E Branch
(5 Sections)

General principles for war-time and peacetime T/O and Equip; Codes and Main Volume; Editing, printing and distribution of war and peacetime T/O and Equip; Determining applicability of T/O and Equipment

Field Manual Branch
(9 Sections)

Calculation of war and peacetime mandatory stocks of Field Manuals; FM printing and reprinting; Instructions for distribution of Field Manuals; Cover sheets; Admin and dispatch of Field Manuals through the Field Manual Administrative Section

Division IIa

Personnel matters for Office Chief; Detachments on detail; Security within staff; Classified material Records Center

Division IVa

Official Travel & travel allowances; Staff finances; Administrative functions in staff of Chief of Army Equipment and Command of Replacement Army

Records Center

Document administration; Classified & unclassified correspondence log; Staff Field Manual admin; Office requisites

This organizational work was distributed among four major divisions of the group, Divisions Ia, Ib, Ic, and V, with Division Ia preponderating.

In Division Ia all data were assembled and compiled for the plans and suggestions submitted by the Chief of the General Army Office to the Chief of Army Equipment and Commander of the Replacement Training Army. All orders governing the organization of new units or the reorganization or rehabilitation of existing units under the authority of the Chief of Army Equipment and Commander of the Replacement Training Army were prepared by this division on the basis of work done in its sections. In collaboration with the Group for Replacements and General Troop Matters the division, through Section VIII, also furnished all necessary data on personnel.

Data on materiel were furnished to Division Ia by Division Ib, which also controlled the distribution of weapons, equipment, and ammunition through the Ordnance Inspectorate and the appropriate arms and services branches. Thus the channels which regulated the proper and economical use of personnel and materiel were within the Policy Group of the General Army Office.

Division Ic was primarily a statistical division. Here records were maintained on every army unit activated after the beginning of the war. These records showed the current location of each unit, which was checked frequently by couriers who maintained contact with the army groups and armies. In addition to being an information center for all offices of the Army High Command, Division Ic took on a considerable degree of operational importance because of its system of field directing centers. Through these centers it was possible to direct an individual soldier to his unit in the field without informing him prior to departure of where his unit was employed. This facilitated the maintenance of secrecy concerning the disposition of forces.

The importance of Division V in the field of organization derived from its section which handled tables of organization and equipment and which is referred to throughout this manuscript as the Tables of Organization Branch. Here the figures computed by the appropriate arms and services branches to establish the authorized personnel and materiel strength for every unit were checked by means of an established distribution chart, making the establishment of a uniform basis for the internal organization of the entire Army possible.

The Field Manuals Administration Branch was amalgamated with the Tables of Organization Branch because the reproduction, administration, and distribution of tables of organization and equipment and field manuals could be handled jointly.

The remaining subdivisions of the Policy Group, namely Divisions Id, IIa, and IVa and the Records Center, were concerned only with the internal routine of the General Army Office and therefore need not be discussed here.

The various agencies attached to the Policy Group, and which are listed in Chart 9, will be described now.

a. Special Staffs. The experience gained with the first units activated during the war revealed that the mere issuance of orders was not sufficient to insure that a unit would be fully ready for action in proper time. The execution of these orders had to be supervised. Special Staffs A and B were organized for this purpose. These staffs were composed of officers fully acquainted with activation procedures.

All newly activated, reorganized, or rehabilitated units were inspected by these staffs prior to the date on which they were to be ready for the field, in order to uncover any difficulties which might have arisen. Owing to their familiarity with the problems involved and their close personal contact with the appropriate branches of the Army High Command, the special staffs were able to expedite the removal of difficulties and, if necessary, could request intervention by the Policy Group. If time permitted, the special staffs even inspected small units during their activation.

The mission of these staffs was to assist rather than to control. Through their activities the Policy Group was kept currently informed on actual troop readiness and on the experience gained in the activation of units. Much red tape was also avoided. The system proved highly satisfactory in every respect.

After the employment of the first German units in Northern Africa, more and more units had to be activated specifically for service in the tropics. At the same time appropriate replacement units had to be maintained. A special staff consisting of officers with tropical experience was established to perform for these units the services performed by Special Staffs A and B for normal units. In addition to supervising the training of units for service in Africa, this staff evaluated the experience gained in Northern Africa.

b. Organization Staffs. Beginning in 1942 more and more units were activated, reorganized, or rehabilitated in occupied western territories instead of in the zone of the interior. The Chief of Army Equipment and Commander of the Replacement Training Army was the responsible officer although the headquarters carrying out the activations were not under his control but under the command of the

Commander in Chief West. To obtain closer liaison, an Organization Staff West was established in Paris as a field agency of the General Army Office. This step substantially facilitated the performance of organizational missions in the occupied western areas and insured timely action by the General Army Office when difficulties arose.

A similar staff, Organization Staff South, was established in Italy for a short while, at a time when control was difficult in Italy because of the large numbers of personnel and the large quantities of materiel which had accumulated there because of transportation difficulties in Northern Africa.

c. The Demobilization Branch. In 1940, when it was expected that the war would end soon, the General Army Office was required in terms of the Mobilization Plan to prepare a Demobilization Plan. Basic regulations governing the demobilization of the wartime army had to be worked out. A special Demobilization Branch was formed for this purpose. It continued its work even after it had become obvious in 1941 that the war would continue for a long time, and it was not discontinued until it had completed its mission. The Demobilization Plan was ready for printing, but only a few copies were distributed to corps area commands as drafts.

d. The General for Special Assignments IV. This officer headed the Army Patrol Service, organized after the Polish Campaign when the first symptoms of declining discipline became evident. The symptoms were noticeable particularly among military personnel on leave and among other military personnel travelling alone and were such as normally follow the front line commitment of troops during war.

In the light of experience gained in World War I, a firm decision had been taken to deal rigorously with such a development from the very outset. To begin with, Army patrols were formed in the field from particularly well-qualified and experienced line officers and NCOs as supplements to the military police and the guard and patrol services maintained by individual units, which were considered inadequate for this special purpose. To render their action more effective, in certain circumstances Army Patrols were authorized to impose penalties on the spot, an unusual procedure in the German armed forces.

Basic regulations governing the mission and activities of the Army Patrol Service were established in the General Army Office by the Branch for General Troop Matters in close cooperation with the Army General Staff. It was found soon, however, that a firm centralized control at a higher level was necessary if really effective

measures to maintain discipline were to be taken. After lengthy negotiations to establish a uniform patrol service for all the armed forces, the Army therefore assigned a general officer to control the entire patrol service of the Army and to supervise generally the maintenance of discipline. The general was placed under the General Army Office and was designated General for Special Assignments IV (General zur besonderen Verwendung IV). The Roman numeral had no particular significance but merely indicated that there had been three previous Generals for Special Assignments.

Acting on the principle that prevention is better than cure, the General for Special Assignments IV placed special emphasis on the supervision and care of soldiers travelling alone. This care included the provision of meals, temporary quarters, proper forwarding, and the supply of information. From these beginnings an extensive organization developed, with welfare units of its own, and the methods employed showed excellent results. Every soldier now had the feeling that he was not alone, that he was taken care of even when away from his unit. Infractions of discipline were held within normal limits right up to the end of the war.

The agency controlled by the General for Special Assignments IV thus developed into a directing staff in the fields of welfare and the maintenance of discipline. At the same time it assumed the characteristics of an arms branch responsible for the Welfare and Army Patrol service units. Although it thus had developed into a branch, it nevertheless remained attached to the Policy Group, since the close contact thus obtained had proved mutually beneficial. The Branch for General Troop Matters remained responsible for the basic regulations concerning such matters as the maintenance of discipline and the mission and authority of the Army Patrol Service.

Finally a joint Armed Forces Patrol Service (Wehrmachtstreifendienst) was established in the spring of 1944 and the General for Special Assignments IV, together with his entire organization, was transferred, as chief of the new agency, from the General Army Office to the Wehrmacht High Command.

4. Status at the End of the War. Lack of data makes the accurate reconstruction of the organization of the Policy Group of the General Army Office as it existed at the end of the war impossible. For this reason, only the more important changes which took place between the end of 1943 and 1945 will be discussed here.

Responsibility for manpower control was transferred from Division Ia, where it had been handled by Section VIII, to a newly established Division II, which at the same time handled the organizational problems of the Replacement Training Army. The sole mission

of Division Ia now was the activation of units for the field forces, for which purpose necessary personnel data were furnished by Division II, while Division Ib continued to furnish data on materiel supplies.

Division Ib assumed new responsibilities for development and planning in the fields of clothing and personal equipment because of the discontinuance of the Clothing Branch, as described on page 37.

Furthermore, a section was formed in Division II to deal with problems of weapons and equipment for the Replacement Training Army; also a special staff to conduct an examination of all wartime tables of organization. Wartime experience had demonstrated the urgent necessity of such an examination.

Further changes were of an administrative nature and, on the whole, did not affect the functions of the Policy Group.

After the Replacement Branch had been transferred to the Wehrmacht High Command as a Conscription and Recruiting Office in the summer of 1944, the importance of the newly established Division II of the Policy Group increased considerably, since no new Replacement Branch was established in the General Army Office. Now all army personnel replacement problems were handled by the Policy Group in close collaboration with the Conscription and Recruiting Office of the Wehrmacht High Command. This close cooperation was possible because this office was staffed by personnel taken over with it when it was developed from the Replacement Branch, so that close personal contacts existed between the staff of the new office and the General Army Office; and also because these personnel were precisely informed on the needs of the Army. Whether this solution would have proved satisfactory in the long run, or whether it would have become necessary to establish a new Replacement Branch in the General Army Office, is an open question.

To conclude: the Policy Group of the General Army Office was the center of all Army organizational activities. Rigid centralization of these activities proved its value, as did close adherence to the principle that the agency responsible for the organizational work of an army must have full control of all manpower and materiel resources.

CHAPTER 3

CONTROL

Before describing the working procedures of the General Army Office, it seems appropriate to describe in some detail the chains of command by which the Office and its branches were controlled as part of the Army High Command, since some knowledge of this control is essential to an understanding of the office's working procedures. Furthermore, the information presented will illustrate the confusion and duplication of effort which developed during the war, with dire consequences, in the top-level command of the Army and the Wehrmacht.

I. CONTROL BY THE ARMY HIGH COMMAND

Upon mobilization, the General Army Office was placed under the Chief of Army Equipment and Commander of the Replacement Training Army, as pointed out more fully in Chapter 1, Section II. The Chief of Army Equipment and Commander of the Replacement Training Army, in turn, was directly under the Commander in Chief of the Army and on an equal level with the Chief of the Army General Staff and the Chief of the Army Personnel Office. These three primary areas of responsibility therefore were equal in status and could be coordinated by a common head.

Under these circumstances, relations between the Chief of Army Equipment and Commander of the Replacement Training Army and the Chief of the Army General Staff were of particular significance to the General Army Office, since all efforts of the office were directed toward furnishing the Chief of the Army General Staff with the forces and other means he required for the performance of his most important mission, directing the operations of Army units in the field. The chains of command were clearly defined as long as the Chief of Army Equipment and Commander of the Replacement Training Army and the Chief of the Army General Staff were equal in status under the Commander in Chief of the Army (Chart 10), who could decide any points in dispute between them and could protect the interests of the entire Army in its relations with the Wehrmacht High Command and with Hitler, the Supreme Commander.

The situation changed, however, when Field Marshal von Brauchitsch was removed from his post as Commander in Chief of the Army and Hitler assumed direct control of the Army. The Chief of Army Equipment and Commander of the Replacement Training Army now came under the control of the Chief of the Wehrmacht High Command, whereas the Chief of the Army General Staff remained immediately under Hitler (Chart 11). This change had results harmful to the General Army Office. It was possible now for the Wehrmacht High Command, without the knowledge or agreement of the Chief of the Army General Staff, to issue orders to the General Army Office through the Chief of Army Equipment and Commander of the Replacement Training Army.

Notwithstanding these circumstances, the Army General Staff continued to address its orders in organizational and supply matters to the Chief of Army Equipment and Commander of the Replacement Training Army. The General Army Office did its utmost to fill them. However, these orders were based on the circumstance that the Chief of the Army General Staff was under the immediate command of Hitler and in a certain sense they bypassed the Chief of the Wehrmacht High Command, who had been appointed also Deputy Commander in Chief of the Army. Therefore, before the office could act on such orders, it was frequently necessary for it first to clarify and smooth out differences of opinion between the Chief of the Wehrmacht High Command, as the controlling superior of the office, and the Army General Staff, as the requisitioning agency.

To make matters worse, the Chief of the Wehrmacht High Command, in his position as Deputy Commander in Chief of the Army, created a staff of his own. In addition to advising, assisting, and acting for him in all matters concerning Army organization and equipment, this staff was to keep itself currently informed on Hitler's views and intentions and to pass on this information to the various Army agencies. Hitherto, the Policy Group of the General Army Office, which could be considered in a sense as the Organizational Branch of the Chief of Army Equipment and Commander of the Replacement Training Army, had cooperated closely with the Organization Branch of the Army General Staff in all matters connected with the organization and equipment of the Army. This cooperation had always functioned smoothly in spite of occasional differences of opinion. But with the attachment of the new Army staff to the Chief of the Wehrmacht High Command, it now became necessary for the General Army Office to reach agreement with two counterpart agencies. Admittedly, it was established that only the Organizational Branch of the Army General Staff was to address requests concerning organization to the General Army Office and that the Army staff attached to the Chief of the Wehrmacht High Command and the Organization Branch of the Army General Staff were to coordinate their requirements. In practice, however, the views and intentions

of the command were now presented to the General Army Office by two separate agencies and the office had to contend against both in its efforts to uphold its own views.

This necessity complicated matters exceedingly, particularly since each of the two agencies could contend that it was presenting the personal views of Hitler to the office although these views, when presented by the Army Staff in line with the concepts of the Chief of the Wehrmacht High Command, differed radically from those presented by the Organization Branch in line with the concepts of the Chief of the Army General Staff. The General Army Office had no way of obtaining clarification directly from Hitler, since the Chief of Army Equipment and Commander of the Replacement Training Army, who would have been the proper person to obtain such clarification, was subordinate to the Chief of the Wehrmacht High Command, who did everything possible to deny him direct access to Hitler.

Another complicating factor was the division of responsibility for the conduct of operations in the several theaters between the Wehrmacht Operations Staff of the Wehrmacht High Command and the Army General Staff, because in practice the interests of the Chief of the Wehrmacht High Command and those of the Chief of the Army General Staff frequently clashed violently.

In spite of these circumstances, the Army General Staff remained responsible for all organizational matters and for the supply services of all Army forces in the field in all theaters. Consequently, the General Army Office, in its constant effort to serve the common interest in the overall conduct of the war, was forced frequently to make an agreement with the Organization Branch of the Army General Staff that was contrary to the policy of its own superior, the Chief of the Wehrmacht High Command.

II. CONTROL BY WEHRMACHT HIGH COMMAND

The Wehrmacht High Command exercised control over the General Army Office in other ways also.

As described in Chapter 1, Sections I and II, the Office performed certain functions for all the armed forces and in doing so was bound by directives of the Wehrmacht High Command. This situation was unavoidable, and because of the otherwise clearly defined chain of command at the beginning of the war, no friction resulted. Here again the situation changed, however, when the General Army Office was given control over the Conscription and Recruiting Office and thus became an agency of the Wehrmacht High Command (Chapter 1, page 5, and Chart 11). In his dual position, the Chief of the General Army Office

was now responsible directly to the Chief of the Wehrmacht High Command in matters concerning all the armed forces--namely, in the organization and direction of recruiting and the general procurement of replacements, as well as in the allocation of personnel to the three branches of the armed forces. But in Army matters--namely, in the distribution of the personnel allocated to the Army--he was responsible in his position as Chief of the General Army Office to the Chief of Army Equipment and Commander of the Replacement Training Army, who, in turn, was responsible to the Chief of the Wehrmacht High Command and Deputy Commander in Chief of the Army. This double line of control was fraught with possibilities for friction, especially when the replacement situation became increasingly critical later in the war.

Of the functions which the General Army Office performed for all the armed forces, those connected with the motor vehicle supply system were the most important (page 44). Modifications in the chain of command in this field were similar to those just described and have been described in Chapter 2.

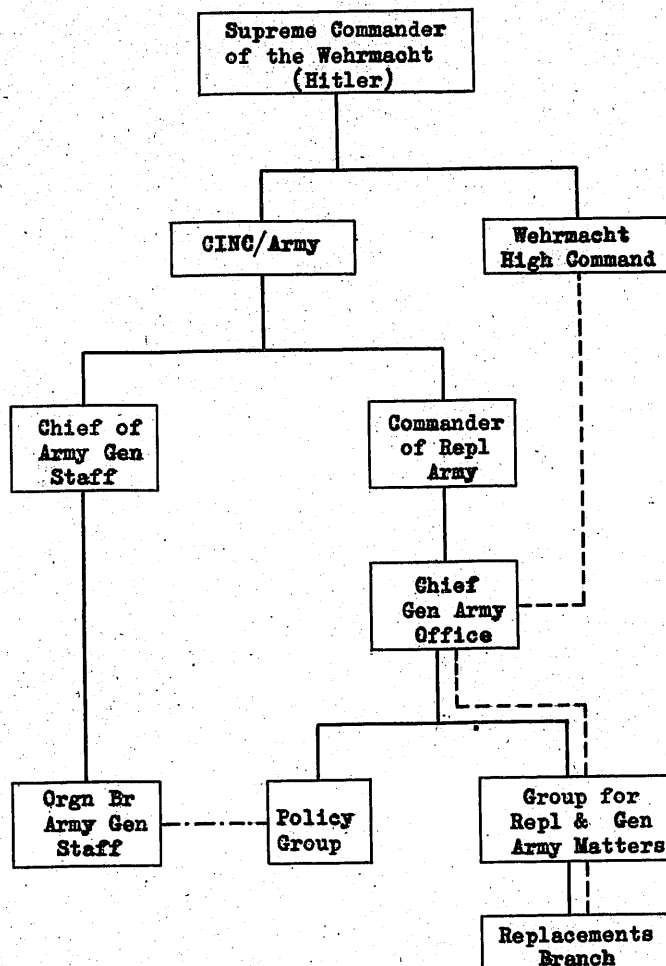
Within the General Army Office, the Chief of the Group for Motor Transportation, who later became the Chief of Army Motorization, was required at first to adhere to directives issued by the Wehrmacht High Command (Chart 13). In 1943, the group he controlled was divided to form an Army agency and a Wehrmacht agency, both of which, however, remained under his control (Chart 14). As Chief of Army Motorization, he remained within the General Army Office and was responsible to the chief of that office and thereby to the Chief of Army Equipment and Commander of the Replacement Training Army, who in turn was responsible to the Chief of the Wehrmacht High Command. But as Chief of Wehrmacht Motorization, he was at the head of a Wehrmacht agency and therefore responsible directly to the Chief of the Wehrmacht High Command.

The dual lines of control in the fields of replacements and motor transportation were discontinued in the summer of 1944 (Chart 15). At that time the Conscription and Recruiting Office and the Group for Wehrmacht Motorization were separated from the General Army Office and each was placed under a separate chief, responsible solely to the Chief of the Wehrmacht High Command (pages 5-6, 28, and 46-47). This measure clarified and simplified the chain of command so far as the General Army Office was concerned, since in these fields it now performed functions for the Army only. At the same time, however, the influence which the Army had been able to exercise in these highly important fields was greatly restricted.

Charts 10-12 show how the chain of command changed within the General Army Office itself as well as in the outside controls to which the office and its branches were subject in the performance of

GENERAL ARMY OFFICE

CONTROLS IN 1939

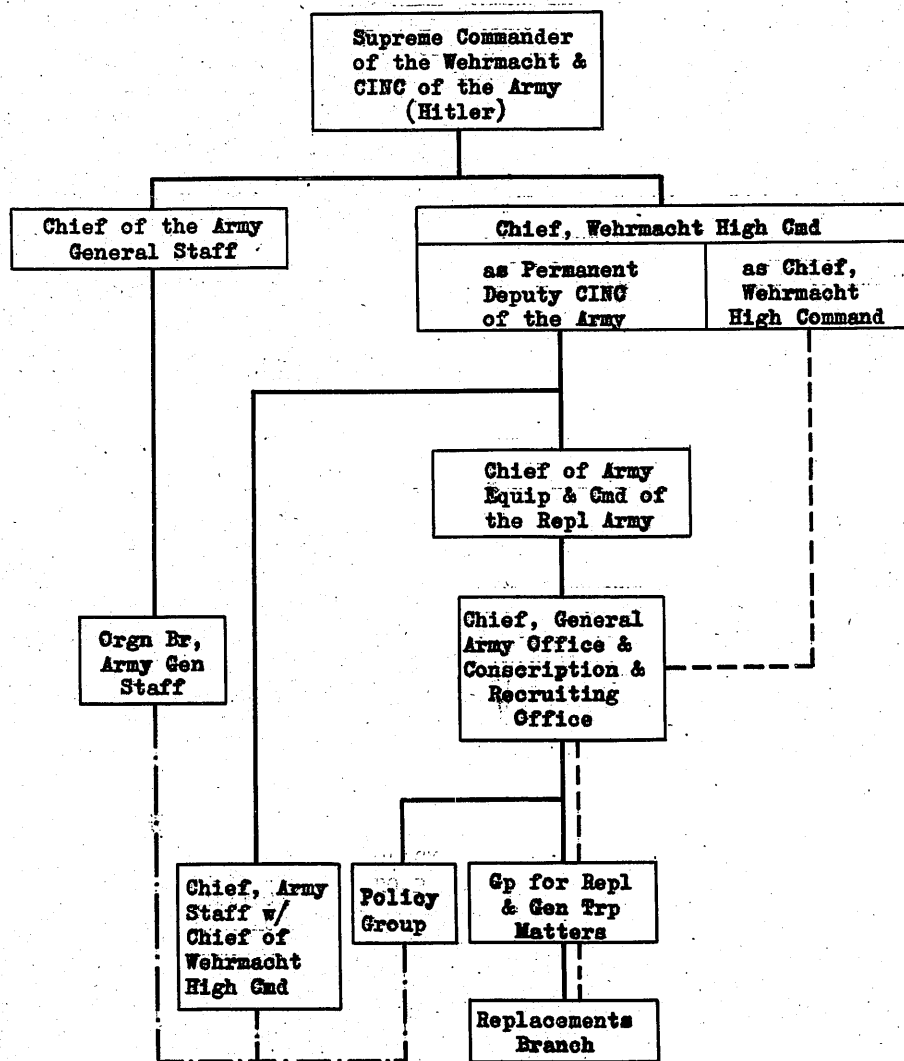


Chain of Command

Authority to issue directives in replacement matters

Required to cooperate closely

GENERAL ARMY OFFICE
Controls in 1943



- Chain of Command
- - - - - Authority to issue directives in replacement matters
- Required to cooperate closely

replacement functions. Charts 13-15 show the changes in the chain of command in the performance of motor transport functions.

In all other fields in which the General Army Office acted for all the armed forces the original arrangement remained in force. The office was required to adhere to the directives issued by the Wehrmacht High Command but was not subject to any special controls. Since this control system caused no major difficulties in these fields they will not be discussed in detail.

III. BRANCH CONTROLS

Apart from the controls described in the preceding section, other extraneous controls were exerted upon certain branches of the General Army Office, and in particular to the arms and services branches. A brief account of these developments follows.

Prior to the war, the arms and services branches had been subject to dual controls (Chart 16). Through their chiefs, the inspectors, they were responsible as inspectorates to the Commander in Chief of the Army. At the same time they were controlled by the General Army Office as branches of that office. This situation changed in most cases upon mobilization (Chart 16a). Certain inspectorates now had jurisdiction only within the Replacement Training Army and came under the exclusive control of the Chief of Army Equipment and Commander of the Replacement Training Army. Their routine business was still handled by the appropriate branches of the General Army Office, but these branches were controlled solely by the office. The only inspectorates to which this arrangement did not apply were the Fortifications, the Medical, and the Veterinary Inspectorates. These remained under the control of their respective inspectors, since the inspectors, besides being under the Chief of Army Equipment and Commander of the Replacement Training Army in Replacement Army matters were also responsible directly to the Commander in Chief of the Army.

At an early stage of the war, posts were created for chiefs of arms and services with the Commander in Chief of the Army (Chart 16a), later with the Chief of the Army General Staff (Chart 17). The arms and services branches of the General Army Office were not placed under the chiefs of arms and services but were required to act in agreement with them and were at their disposal for the drafting of regulations, directives, orders, and requisitions.

It was only at a later stage that dual controls again developed, when a Chief of Training in the Replacement Training Army (Chart 17, 1942-1944) was appointed under the Chief of Army Equipment and

Commander of the Replacement Training Army. In training matters, the arms and services branches were now required to serve the new Chief of Training and to work according to his directives.

In the autumn of 1944 a change took place in the status of the chiefs of arms and services with the Chief of the Army General Staff and of the Chief of Training in the Replacement Training Army (Chart 17, 1944-End of War). Now all these officers were attached directly to the Army High Command and were responsible to the Chief of the Army General Staff for their missions in the field forces and to the Chief of Army Equipment and Commander of the Replacement Training Army for their missions in the Replacement Training Army. The arms and services branches, each under an inspector, were placed under the control of the chiefs of arms and services, so that the situation which had existed prior to the war was restored.

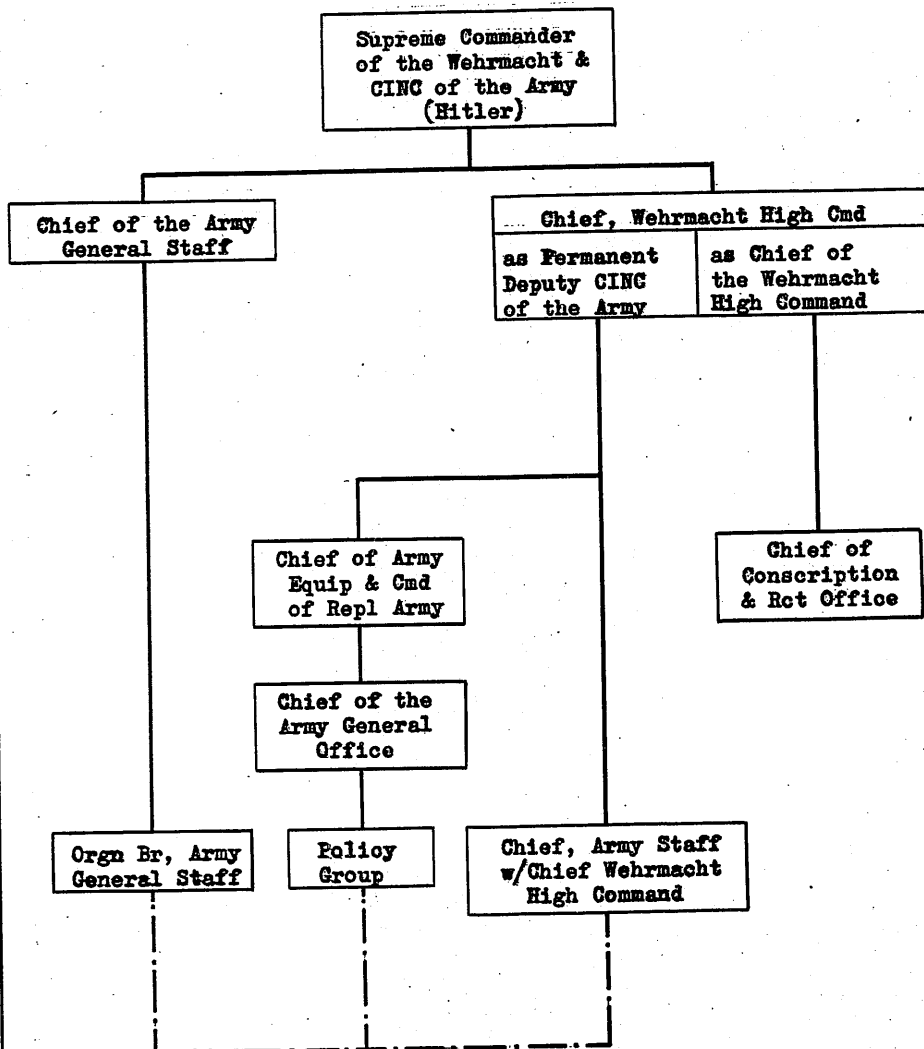
Charts 18-19 illustrate the processes by which the changes just described took place in the Fortifications Branch (Inspectorate 8) one of the arms and services branches which retained their status as inspectorates after mobilization.

The Panzer Troops Branch (Inspectorate 6) was a special case. During the first years of the war, it resembled the other arms and services branches in status. In 1943, however, an Inspector General of Panzer Troops (Guderian) was appointed under the immediate control of the Commander in Chief of the Army, so that he was equal in status to the Chief of the Wehrmacht High Command (who was at the same time Deputy Commander in Chief of the Army), the Chief of the Army General Staff and the Chief of the Army Personnel Office. He also had direct command authority over the panzer troops in the Replacement Training Army. In order to enable him to exercise the latter authority, an Inspector of Panzer Troops was appointed under him. The Inspector was given control over Inspectorate 6, the Panzer Troops Branch, so that dual control was established again, as prior to the war. The Chief of Inspectorate 6 served simultaneously as chief of staff to the Inspector of Panzer Troops. The chain of command thus developed is illustrated in Chart 20.

To complete the picture of the system by which the arms and services branches were controlled, the following additional examples of multiple control are given:

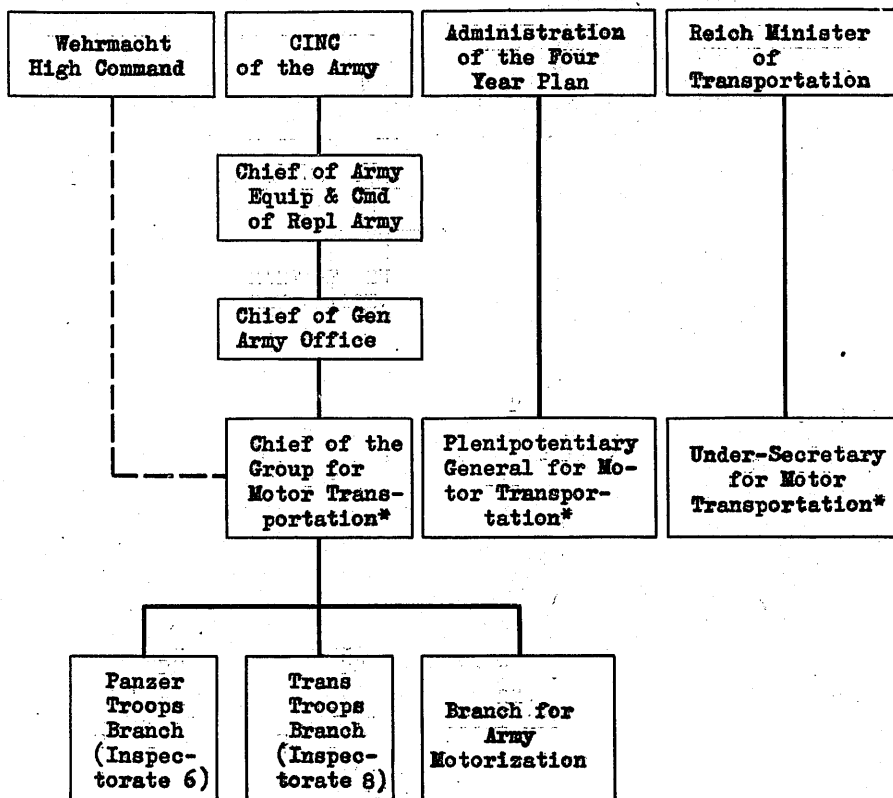
The Chief of the Technical Troops Branch (Inspectorate 11) served at the same time at the Army High Command as Chief of Technical Troops. As such, he was responsible to the Chief of the Army High Command.

GENERAL ARMY OFFICE
CONTROLS AFTER SUMMER 1944



———— Chain of Command
- - - - - Required to act in agreement

GENERAL ARMY OFFICE, 1940
CONTROL OF MOTOR VEHICLE SUPPLY

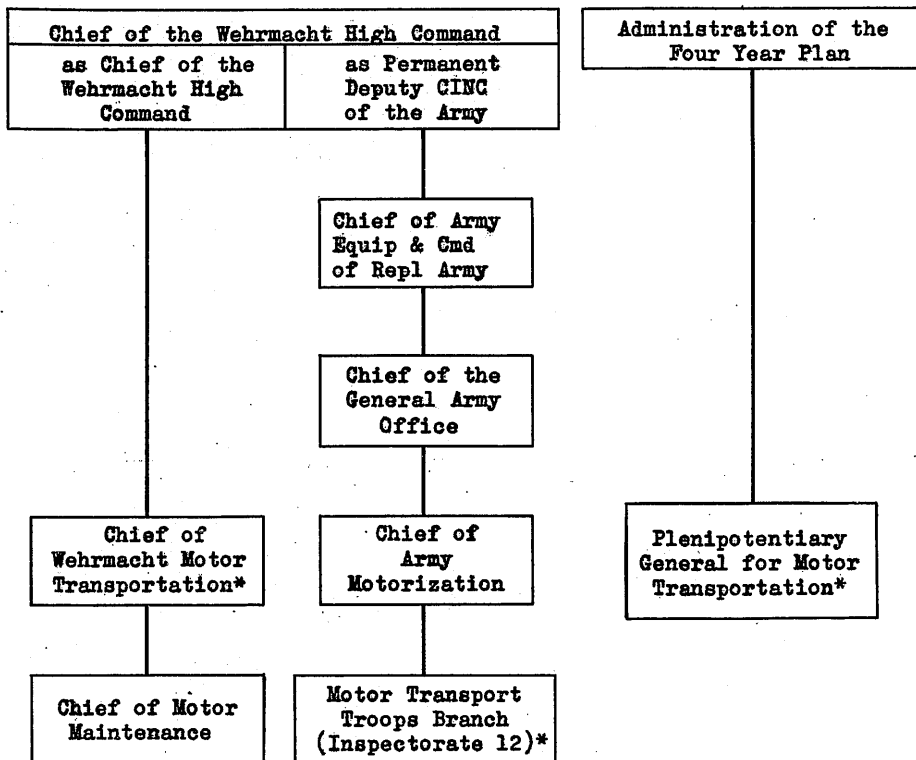


* It should be noted that these three posts were held simultaneously by one individual.

———— Chain of Command

----- Authority to issue directives in matters of motor transportation

GENERAL ARMY OFFICE, 1943
CONTROL OF MOTOR VEHICLE SUPPLY

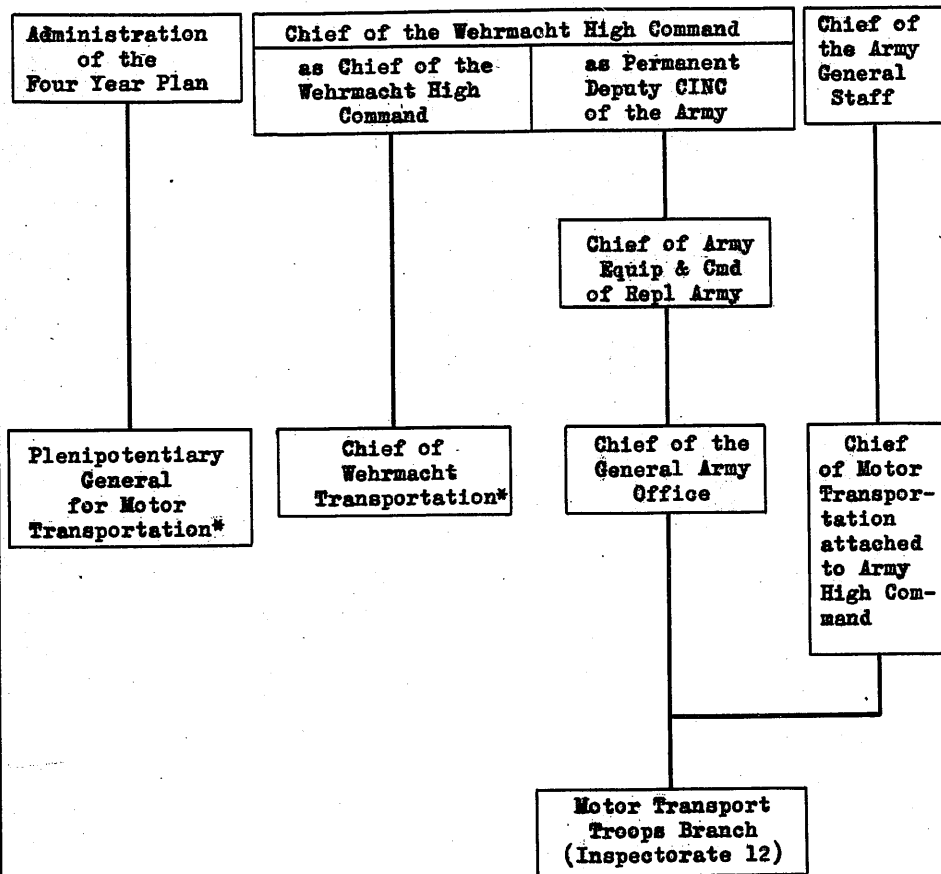


* It should be noted that these three posts were held simultaneously by one individual.

GENERAL ARMY OFFICE

Summer 1944

CONTROL OF MOTOR VEHICLE SUPPLY



* It should be noted that these two posts were held simultaneously by one individual.

GENERAL ARMY OFFICE

Chain of Command Arms and Services Branches (Infantry Branch)

Prior to War

Pre-War Period

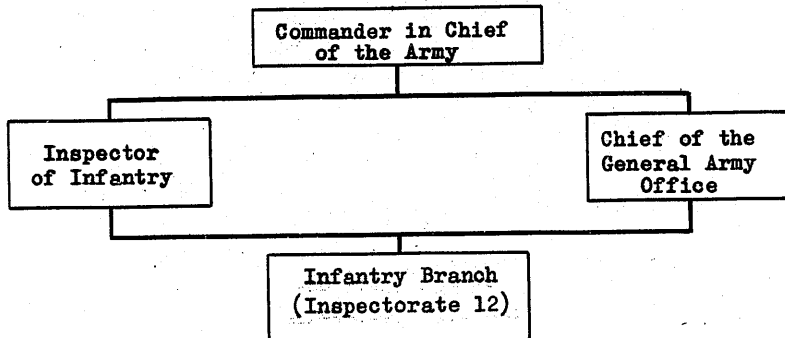
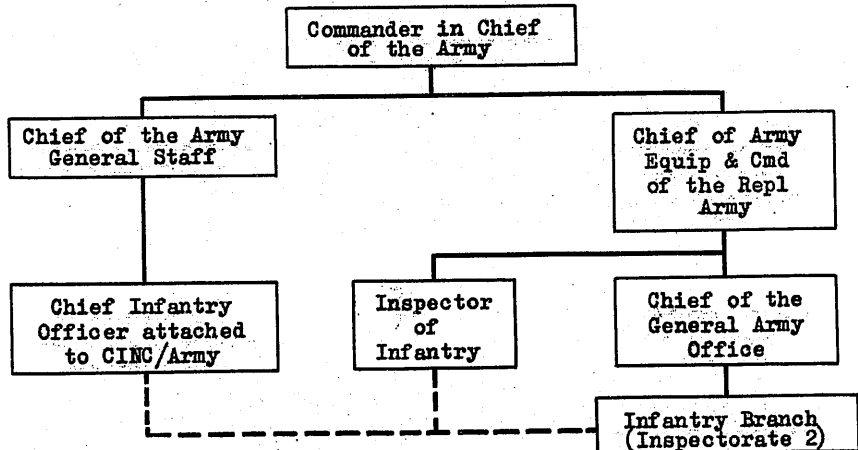


Chart 16a

1939-1941



In respect to controls, the Infantry Branch may be considered typical of all arms and services branches..

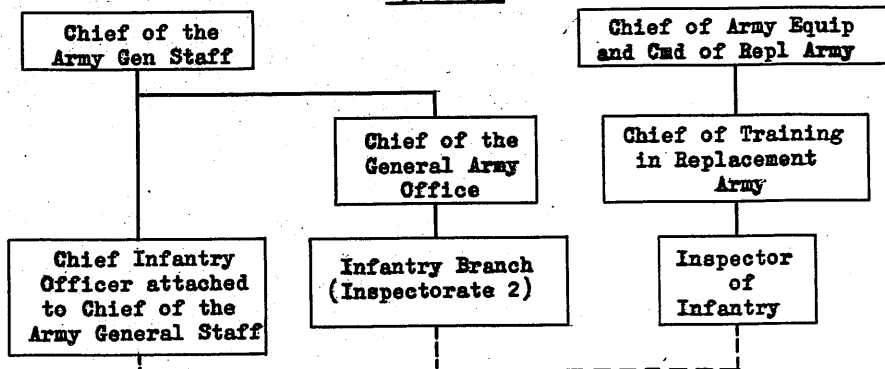
----- Chain of Command

----- The Infantry Branch served as the staff of the Chief Infantry Officer and the Inspector of Infantry

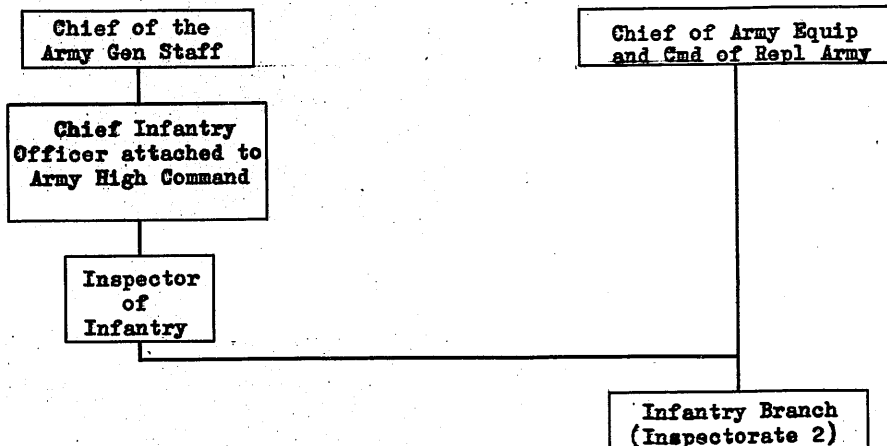
GENERAL ARMY OFFICE

Chain of Command
Arms and Services Branches
(Infantry Branch)

1942-1944



1944-End of War



In respect to the control system, the Infantry Branch may be considered as typical of all Arms and Services Branches.

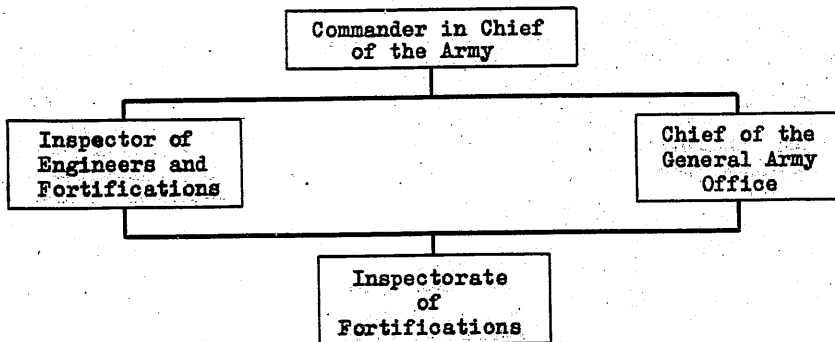
————Chain of Command

-----The Infantry Branch served as the staff of the Chief Infantry Officer and the Inspector of Infantry.

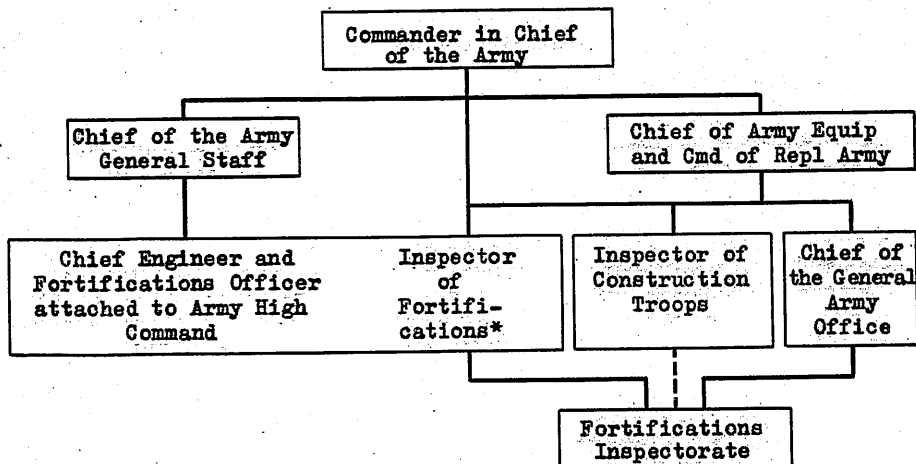
GENERAL ARMY OFFICE

Chain of Command
Inspectorate of Fortifications

Pre-War Period



1939-1940

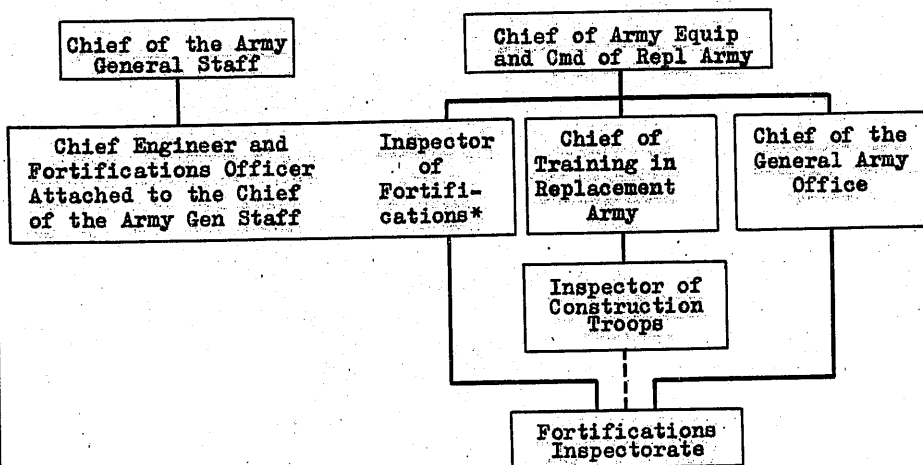
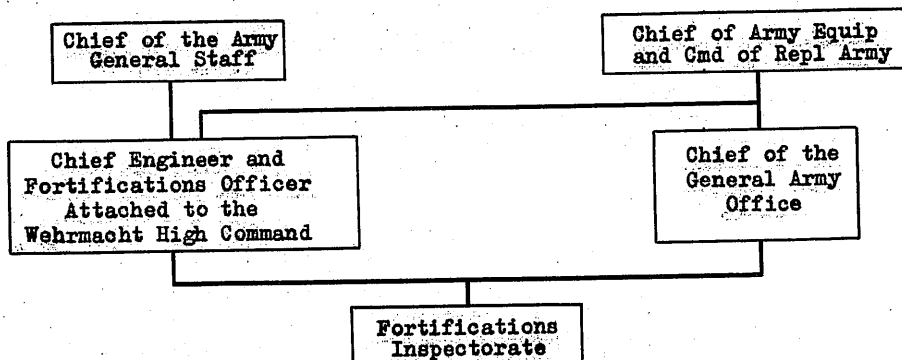


* It should be noted that these two posts were held simultaneously by one individual.

———— Chain of Command

----- Required to act in agreement

GENERAL ARMY OFFICE

Chain of Command
Inspectorate of Fortifications1942-19441944-End of War

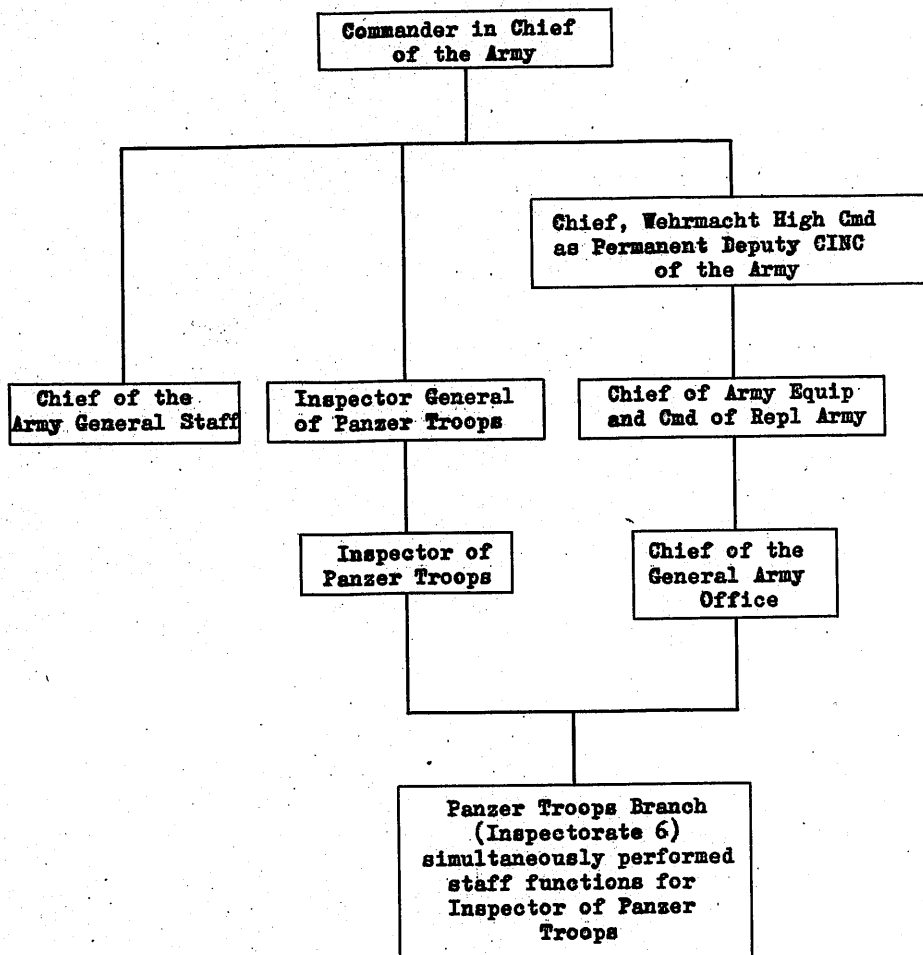
* It should be noted that these two posts were held simultaneously by one individual.

———— Chain of Command

----- Required to act in agreement

GENERAL ARMY OFFICE

Chain of Command
Panzer Branch (Inspectorate 6)
After the Appointment of an Inspector General of Panzer Troops



Later in the war, The Army Medical Inspector was assigned added responsibilities as Chief of the Wehrmacht Medical Service. At the same time, and in addition to the Chief of Staff of the Army Medical Inspectorate (Inspectorate S) who simultaneously served as Chief of the Medical Branch in the General Army Office, a Chief of Staff, Wehrmacht Medical Service was appointed. The latter had no staff of his own but had to depend on the staff of the Army Medical Inspectorate.

Of the other branches in the General Army Office, the Ordnance Inspectorate and the Legal Branch were under dual controls. As a branch, the Ordnance Inspectorate was under the Chief of the General Army Office. As an inspectorate it was under the Chief Ordnance Officer, who was responsible to the Chief of Army Equipment and Commander of the Replacement Training Army. At a later date the Chief Ordnance Officer, as Chief Army Ordnance Officer, was responsible also to the Chief of the Army General Staff (page 32).

Other post-1943 modifications of lines of control concerned the transfer of responsibilities for the entire armed forces from the General Army Office to the Wehrmacht High Command and the development of a firmer organization of the arms and services branches within the Army High Command, subjects which are not being covered in this manuscript.

IV. SUMMARY

A cursory comparative study of the evolutionary processes described in the foregoing sections reveals clearly how the well-defined pattern of control which existed at the beginning of the war gradually disintegrated during the war. The causes lay in the top-most level of command, particularly in the fact that, in addition to his responsibilities as Head of the State and Supreme Commander of the Wehrmacht, Hitler assumed direct control of the Army as Commander in Chief of the Army. A closer study of these developments in the highest levels of command, their causes, and their results would exceed the scope of this treatise on the General Army Office. Only their effects upon the General Army Office and the inferences drawn by the office are of interest here.

An effort has been made in Chart 21 to show the lines of control to which the General Army Office and its branches were subject in 1943. At first glance the chart presents a picture of utter confusion and perplexing entanglement. Many an officer remained unable to find his way around in this maze even after years of service in the Army High Command. Moreover, the chart shows that not only the General Army Office itself but practically all of its branches--eighteen out of twenty--were under at least two lines of control.

Nevertheless, and as perplexing as the situation presented by the chart may appear, it was developed by the General Army Office with a set purpose and in pursuit of a definite goal. After Hitler assumed direct control as Commander in Chief, the Army lacked uniform control. Matters which had been decided hitherto by the former Commander in Chief now had to be settled by agreement between the several top-level agencies. This necessity frequently led to duplication of effort, as described previously. The gravest danger, so far as the General Army Office was concerned, lay in the fact that each top-level agency had its own specific desires and intentions in matters of organization. Something definite had to be done to protect the troops against the reception, from the polyglot top-level command, of conflicting orders and directives concerning matters of organization. Since firm control through a common head within the Army High Command no longer existed, a preventive had to be sought at an intermediate level. The development of multiple controls averted the danger that every agency which concerned itself with organizational matters would establish its own staff, since the branches of the General Army Office were made available for this purpose. A closer examination of Chart 21 will reveal that all such matters finally found their way through the several branches to the Policy Group.

Thus the Policy Group of the General Army Office can be compared with a sluice gate through which everything concerning organization had to pass on its way to lower level headquarters or to the field forces. This has been pointed out in more detail in Chapter 2, Section III, on the mission of the Policy Group. Since all branches considered themselves primarily as parts of the General Army Office and since they realized fully that all organizational activities required the coordinated efforts of the several branches of that office, there was general assurance that the Policy Group would be informed in good time of all plans under consideration by any other agency. It was therefore possible, almost always, to prevent the issuance of directives to lower level headquarters before diverging top-level intentions and desires, which could not always be fulfilled simultaneously, had been coordinated.

The General Army Office was not able to remedy the confusion in the top level of command, but it was highly successful in its efforts to restrict the resultant difficulties and internal conflicts to the Army High Command itself and to prevent the confusion there from finding expression at lower levels in the form of conflicting directives. After 1942 this was one of the most important functions of the General Army Office, which itself had no command mission and therefore did not work to serve its own ends. It concentrated instead on holding available in the Replacement Training Army a constant reserve of personnel and materiel and on guiding the expenditure of that reserve in a

manner which would best serve the over-all interests in the conduct of the war. In performing its mission, the General Army Office took the position that determining which of a number of courses was the wisest at any given time was less important than making sure that the incessant struggle over the choice of courses, caused by the unfortunate top-level organization, should be resolved within the Army High Command itself. Otherwise the confidence of the troops in their leaders would have been undermined by the receipt of confusing and conflicting commands.

CHAPTER 4

WORKING PROCEDURES

I. INTRODUCTION

Because of the diversified nature of the functions of the General Army Office, it is almost impossible to present a complete picture of the procedures employed by the office and its branches. Moreover, any effort to do so would be beyond the scope of this study. The present chapter will therefore limit itself to an examination of procedures in connection with the organizational structure and the maintenance of the Army, which were the ultimate goals toward which the concerted efforts of all branches of the office were directed. Discussion of specialized subjects, some of which have been covered in earlier sections of this study, will be avoided.

The peacetime build-up of the Army and the work done in preparation for mobilization will likewise be omitted, since the study concentrates upon an examination of wartime activities. However, the considerations governing the activation of new units during the war will be explained together with the methods employed in such activations and in making personnel and materiel reserves available to the field forces.

Methods employed during the war were based on the methods which had proved successful in organizing the peacetime Army, but war conditions called for more flexibility and the adaptation of methods from case to case. The reader will be shown how well-considered systematic peacetime methods and properly planned measures of the first phase of the war deteriorated into a constant groping for improvisations as the war continued.

II. BASIC CONSIDERATIONS

Under the Chief of Army Equipment and Commander of the Replacement Training Army, the General Army Office was responsible for all organization matters. These matters had to be reported to the Chief of Army Equipment and Commander of the Replacement Training Army by

the Chief of the General Army Office in person. Conferences were therefore necessary several times each week and sometimes daily. At these conferences alternative proposals were examined and a decision reached concerning the course of action to be suggested to the Commander in Chief of the Army or to the Chief of the Army General Staff. The work of the office was conducted in accordance with directions received at the conferences.

The staff of the Chief of Army Equipment and Commander of the Replacement Training Army did not take part in the work of the General Army Office; so in general, no written correspondence between the two staffs was necessary. Incoming mail concerning the work of the General Army Office was delivered directly by the staff of the Chief of Army Equipment and Commander of the Replacement Training Army to the Chief of the General Army Office. Outgoing letters and orders were prepared in the final form by the General Army Office for signature by the Chief of Army Equipment and Commander of the Replacement Training Army. However, to insure smooth cooperation, the two chiefs of staff took part in the conferences referred to above, so that they were always fully informed concerning all views and plans. Furthermore, the two chiefs of staff were in contact daily, and sometimes repeatedly during the day, to discuss implementation of decisions reached during the conferences they had attended. Because the agencies were in adjacent offices in the same building in Berlin, this close and immediate contact and intimate exchange of ideas were possible.

It should be borne in mind, then, that the views expressed by the General Army Office were at all times identical with those of the Chief of Army Equipment and Commander of the Replacement Training Army and that the office acted on his behalf. He was the responsible head in whom authority was vested; the General Army Office was his executive agency.

All work of an organizational nature must be governed by two basic factors: the purpose which the body to be organized is to serve and the existing and potential means. In the organizational activities of the General Army Office the first factor found its personification in the Chief of the Army General Staff, since it was he who, using the Army being organized, would wage war. The second factor was represented by the Chief of Army Equipment and Commander of the Replacement Training Army and his General Army Office, which was responsible for the administration of the means and for insuring that they were held available for the Chief of the Army General Staff in the best possible shape.

At the beginning of the war these two men had direct access to the Commander in Chief of the Army, who could decide any points in dispute or could obtain a decision from the Head of the State and Supreme Commander of the Wehrmacht. In general, negotiations took place between the Policy Group of the General Army Office and the Organization Branch of the Army General Staff; but for highly important conferences, the Chief of Army Equipment and Commander of the Replacement Training Army himself went to the office of the Chief of the Army General Staff at Army High Command Headquarters, frequently accompanied by the Chief of the General Army Office.

This normal and well-regulated system was disrupted when Hitler assumed direct control as Commander in Chief of the Army. How his assumption of authority affected the General Army Office has been described in Chapter 3.

The most serious effect of the change upon the working procedures of the General Army Office was that the office now had considerably less opportunity to participate in decisions and limited possibility of making its own. In the work of the office emphasis therefore shifted to negotiations with the Organization Branch of the Army General Staff and with the newly created Army Staff attached to the Chief of the Wehrmacht High Command (page 65).

Nevertheless the General Army Office adhered to its guiding principle that, except in questions concerning actual potentialities, which the office alone was in the position to answer, the desires of the Army General Staff must be the primary consideration in the establishment of policies, since the Chief of the Army General Staff was to employ the instrument which the office shaped. This principle remained valid even after the theaters of operations were separated into Wehrmacht High Command theaters and Army High Command theaters; the Chief of the Army General Staff remained solely responsible for the organization and supply of Army field forces in all theaters.

The Organization Branch of the Army General Staff was by no means the only agency which required the services of the General Army Office. Many special requests were received from the several arms and services, which had representatives at the Army General Staff or at the headquarters of the Chief of Army Equipment and Commander of the Replacement Training Army, as well as from non-Army agencies.

Of the latter, the Wehrmacht High Command deserves special mention. Apart from the normal requirements of its theaters of operations, the Wehrmacht High Command requisitioned personnel and materiel for other purposes; for example, for its economic units, such as the Mineral Oil Brigades; for its propaganda

units, and for the Wehrmacht offices of various types. Special requests were submitted also by the Navy and the Air Force; particularly by the latter for the ground combat units it was forming. The activation of Luftwaffe Field Divisions, ordered by Hitler against the combined protests of the Army General Staff and the General Army Office, would have been impossible if the office had not made materiel, horses, and training personnel available on a large scale. Other requests came from the increasing number of units activated by the Waffen-SS, which insisted on preferential treatment in the allocation of weapons, equipment, and motor vehicles on the basis of the directives issued to it by Hitler.

Non-military organizations which submitted their requests to the Office included the Organisation Todt,¹ the police force, the Hitler Youth Organization, the Reich Labor Service, the postal and railway services (for troops to protect their installations), and the Finance Ministry (for personnel for customs border patrols). In most cases these agencies required weapons and equipment, but sometimes also requested support in personnel matters, such as the assignment of military personnel or the granting of indispensability status for civilian personnel. The Hitler Youth Organization, for instance, required instructors for the camps at which youths received pre-military training. All such requests required careful consideration, in which the availability of means and the justifiability of the request had to be weighed. This was particularly true later in the war, when shortages in manpower and materiel became more and more acute while the requirements continued to grow.

In all these matters the General Army Office adhered loyally to its policy of acting in full agreement with the Army General Staff and therefore informed the Army General Staff of all requirements which might conflict with the needs of that staff's Organization Branch. If possible, this policy was pursued with even more consistency after the removal of the former Commander in Chief of the Army, when the only possibility of obtaining a generally binding decision from the highest level was through the Army General Staff.

The unfortunate system of command at top level made it impossible for the new Commander in Chief of the Army, Hitler, to assign missions directly to the Chief of Army Equipment and Commander of the Replacement Training Army. All assignments had to be channelled through a number of agencies (Charts 10-12).

To protect itself against future criticism in the latter days of the war the General Army Office later fulfilled only those requests

¹ A para-military labor organization of the National Socialist Party, auxiliary to the Wehrmacht.

which the Organization Branch of the Army General Staff made or approved in writing. Complaints were not infrequent, particularly when manpower and materiel shortages became increasingly acute and requisitions more and more urgent because of the critical situation at the front. Investigations proved all such complaints to be unfounded. Throughout the war the General Army Office worked wholeheartedly for the common cause and with no thought for its own prestige, concentrating all its efforts on rendering the greatest possible measure of help and support to the hard-pressed field forces.

III. TABLES OF ORGANIZATION AND EQUIPMENT AS THE BASIS FOR INTERNAL ORGANIZATION

The results of careful studies and decisions reached concerning the structure and organization of Army units, personnel to be allotted, and arms, equipment, motor vehicles, and horses to be assigned, were embodied in tables of organization and equipment. These tables not only represented the results of careful work in many fields, particularly by the arms and services branches of the General Army Office, but also provided a basis for all activations and reorganizations of units as well as for all other organizational measures, including the steps taken during the war to economize in personnel and materiel.

The establishment of tables of organization and equipment therefore must be considered as one of the primary functions of the General Army Office. For this reason a separate treatise on this topic is included as Appendix C to this study. It describes the computation of figures for the tables and their application in practice and thereby gives a clear picture of the work of the General Army Office in this field. In its detail it exceeds the general scope of this study. Nevertheless it is included unabridged because it presents information not to be found in any printed regulations and is unique in its description of the basis upon which the entire German Army was founded.

IV. PROCUREMENT OF PERSONNEL AND MATERIEL

All organizational planning, whether concerned with the activation of new units or the reorganization or rehabilitation of existing units, hinged primarily on two major factors, manpower and materiel.

The correct assessment of manpower and materiel currently available was not sufficient. Of equal importance was the correct assessment of increments that could be expected, the time at which they could be expected, and the percentages that would have to be deducted

to replace losses in the field forces. These computations made it possible to calculate the time within which desired targets could be reached. The deadlines thus arrived at had to be coordinated with the requirements of the command. Then target dates were established as described in Chapter 1 and, in the case of large scale projects, were combined to form a program, which was given a specific designation.

The following pages describe the methods employed by the General Army Office in procuring personnel and materiel for the activation of new units and for use as replacements.

1. Personnel. Conscription and recruiting for military service will not be treated here. Although they were an important part of the organizational work of the General Army Office, they were functions which the office performed in its dual role as the Conscription and Recruiting Office, an agency of the Wehrmacht High Command, for the entire Wehrmacht. The particulars of this function are covered in MS # T-101 on the Wehrmacht High Command. The following pages will be devoted exclusively to an examination of the work done by the office for the Army.

In all organizational projects there was a distinction between cadre and filler personnel. The cadre of a unit consisted of a certain number of officers and NCOs, together with key technicians and a varying number of battle-seasoned or thoroughly trained privates. The number of privates in the cadre varied with the type of unit. The filler personnel consisted of replacement troops in various stages of training, who were assigned in the numbers required to bring the unit up to its authorized strength.

Cadre personnel varied widely in type and origin. Filler personnel came from the large reserve in the Replacement Training Army, which also had to provide replacements for losses suffered by existing units. It therefore will be necessary to examine here the organization of the replacement troops, the distribution of replacements, their movement from the Replacement Training Army to the field units or to new units being activated, and the procurement of personnel for the establishment of cadres.

a. Organization of Replacement Troops. The Replacement Training Army consisted of replacement troops, permanently located headquarters, zone of interior installations, and units required within the zone of the interior, such as local defense units employed at guard duties.

The General Army Office was responsible for the organization of the Replacement Training Army and was required to keep it under

constant supervision and to adapt it to current circumstances. The office submitted its suggestions to the Commander for approval and acted in accordance with his decisions.

This part of the study is concerned solely with the actual replacement troops, which represented the manpower reserve controlled by the Chief of Army Equipment and Commander of the Replacement Training Army and administered by the office.

Replacement units were activated upon mobilization according to prepared plans; for instance, an infantry replacement battalion for every infantry regiment or a replacement battery for every artillery battalion in the field forces. They had a double mission. First, for organizational purposes, they were the zone of interior headquarters of their corresponding units in the field forces. Each replacement unit procured the required reserves for its field unit, held them available and received and handled all personnel returning to the zone of interior from the field unit. Second, the replacement units had the mission of training newly recruited personnel.

In addition to the normal replacement units, the Replacement Training Army also contained personnel replacement transfer units and convalescent units. After completion of their basic training, all newly trained personnel were placed in the replacement transfer units; all sick and wounded released by the hospitals were held in the convalescent units until they were fit for reassignment to the field. The number of normal replacement units was constant, but the number of replacement transfer and convalescent units varied according to requirements and was determined in each corps area by the appropriate deputy corps headquarters.²

Two important changes took place in this basic structure during the war. The first change involved numbers alone. Because of the large number of units activated during the war, and because it was found that the existing ratio of replacement to field units was disproportionate (since certain arms suffered heavier losses than others), the practice of establishing a specific replacement unit for each field unit was discontinued. The office now commenced adapting the

²In times of war, the corps headquarters (Wehrkreiskommando) normally in control of a corps area (Wehrkreis) moved to the field. Its place was taken by a deputy corps headquarters (stellvertretendes Generalkommando).

number of replacement units to actual requirements and availability. Three factors had to be taken into consideration:

- (1) Expected casualties;
- (2) Requirements for intended new units;
- (3) The number of recruits expected under the existing draft system.

The computations arrived at were revised from time to time and provided a basis upon which the office could regulate the size of the Replacement Training Army by establishing new or disbanding existing replacement units. Under the new arrangement, each field unit remained tied to a specific replacement unit, but each replacement unit was required to service a number of field units instead of only one, as had been the case under the old system. The new system was far more elastic and, what was more important, it precluded the possibility that any arm or service which experience had shown required few replacements would have too large a replacement system in the zone of interior.

The second change was more significant. For some time past, the Chief of Army Equipment and Commander of the Replacement Training Army had contemplated separating the responsibility for basic training from the other missions of the replacement units, since it had been found that the administrative work of the units was so onerous that training suffered. In particular, commanders from company level up had not been able to devote enough time to the training of the men in their units. In the autumn of 1942 an order that elements of the Replacement Training Army were to be moved to occupied territories in order to release field units employed there as occupation forces provided an opportunity for the introduction of an organizational change. Existing replacement units were now separated into training units and replacement units, the former having the mission of training raw recruits. All other functions, such as the assignment of draftees, the handling of personnel files, the organization and outfitting of units for transfer to the field forces, and the reception of convalescents and other personnel returning to the zone of interior from the field units, were now made the sole responsibility of replacement units. Only training units were transferred to the occupied territories; there they were consolidated into reserve divisions and reserve corps. Replacement units remained in the zone of interior, to which they were more or less restricted by the nature of their functions.

Major training units consisted exclusively of a specified number of training sub-units. Major replacement units consisted of an unspecified number of cadre units and a fluctuating number of

replacement transfer and convalescent units. The cadre units assumed responsibility for all functions previously performed by the former replacement units with the exception of the basic training of raw recruits.

The separation into training units and replacement units was a desirable solution from the viewpoint of the Chief of Army Equipment and Commander of the Replacement Training Army. Nevertheless, the transfer of training units from their appropriate corps areas to the occupied territories could be considered merely as an emergency solution, which enabled the Replacement Training Army to support the field forces whose available units were inadequate for their mission. The relief was accompanied by considerable disadvantages. In all personnel planning it added a new element of uncertainty to time calculations, which were upset by the additional time required to transport troops to the occupied territories for training. Also it upset quantitative calculations, since some of the replacement troops in the reserve divisions in occupied territories were tied down and expended during the performance of guard duties and in anti-partisan action.

Furthermore, a source of constant friction developed from the dual control to which the units were subject, since they were under the command of their home corps area headquarters and at the same time under that of local commanders in the occupied territories. The friction imposed a heavy burden on the office and made the situation particularly difficult when the training units necessarily became involved in combat during withdrawals. Replacement troops in the units were then no longer available for the planned replacement program and therefore new training units had to be organized, to replace them, in the zone of interior. However, even before this situation developed, the General Army Office had not hesitated to cut deeply into both the personnel and materiel of the Replacement Training Army, if by so doing it was possible to help the field forces in critical situations. More will be said on this subject later in the study.

One of the responsibilities of the office was to insure timely and adequate training of newly recruited personnel so that they could be transferred at the proper time to the field forces for proper employment. From what has been said it will be seen that circumstances resulted in ever new organizational problems and additional work for the office.

b. Schools and Demonstration Units. These were an exclusive responsibility of the arms and services branches and were eminently important in the development of weapons and the training of personnel. Their missions have been described in Chapter 2.

From the viewpoint of personnel administration, the schools and demonstration units were expensive. To fulfill their purpose they had to have the very best personnel. All agencies concerned did their very utmost to develop the schools and demonstration units and to furnish them the very best personnel in adequate numbers. The General Army Office found it necessary to intervene frequently to keep expenditures down to a justifiable level. Therefore all requisitions for schools and demonstration units were scrutinized with particular care. The importance of their mission was by no means underrated. On the contrary, the office consistently exerted its influence to obtain proper recognition of the high importance of their training mission and frequently had to contend, unfortunately not always with success, against the deprecating views of higher levels.

In addition to performing their training mission, the schools and demonstration units, represented a last reserve of highly qualified personnel for extreme emergencies.

c. Enlisted Replacements. When the number of men to be called up during one or more draft periods had been determined and the number to be allocated to the Army decided upon, the General Army Office had performed its Wehrmacht High Command functions in conscription and recruiting matters. Thereupon the office had to commence planning the distribution of allocated personnel to the various arms and services of the Army. This planning was based on the reported number of vacancies, the calculated figures for probable battle and other losses, and the requirements for new units.

All organizational planning, all suggestions submitted, and all measures taken by the office were based on the number of troops in the Replacement Training Army. Due consideration had to be given to the fact that the available replacements were of various categories in respect to age, physical fitness and status of training, and to the availability of the sick and wounded who had recovered sufficiently for reemployment at combat duties. A further consideration was that there was a limit upon the size of the Replacement Training Army so that steps had to be taken to insure that all men who had completed their training were transferred from that Army for appropriate employment in order to make space for new recruits. All this called for extremely careful control both of the timing of measures and of numerical strengths, and required precise advance computations. This work was done by Section VIII, Division I of the Policy Group and

provided a basis for decisions concerning the use of available personnel as replacements for existing field units or as filler personnel for new units or units undergoing reorganization or rehabilitation.

Originally the principle governing the assignment of replacements to field units had been that each field unit was to receive its replacements from its appropriate replacement unit. In like manner, all convalescents were to be reassigned to their original units as soon as they were fit for duty. The wisdom of this principle was fully realized in the office and everything possible was done to follow it. However, strict compliance was not always possible. The rising losses in the Russian campaign and the impossibility of replacing them fully necessitated the development of a system under which replacements would be assigned to the units which needed them most urgently. Under this system, the General Army Office reported monthly to the Organization Branch of the Army General Staff the number of replacements ready for assignment to field units and the number of personnel transfer battalions in which they would be enrolled. The ultimate destination of the replacement transfer battalions was decided by the Army General Staff. In accordance with the decision reached by the Army General Staff, the office instructed the appropriate corps area headquarters to prepare the personnel replacement transfer battalions for shipment, stating which divisions or GHQ units in the field were to receive them. Efforts still were made, although not always with success, to ship each division's replacements from its home corps area headquarters so as to retain the regional character of individual divisions.

A greater measure of success was attained by the office in its attempts to reassign convalescents to their own units. The system here was to form convalescent transfer companies and forward them to the appropriate divisions. However, it repeatedly became necessary to employ convalescents in forming cadres for new units, as will be described in the next section, so that not all could be returned to their old units.

In assigning personnel to units during activation, reorganization, or rehabilitation, the time factor was most important. Before a unit could be brought up to authorized strength, it first had to exist as a firm structure. On the other hand, it was desirable for all personnel to join their future units as early as possible, so that enough time would be available for proper integration of the unit before it went into action. If a unit had an adequate hard core of good cadre personnel and if time was available, it could be assigned recruits who though they had not yet completed their basic training could be brought up to standard in their future unit. For the unit in question this was an advantage, since it was able to train its own

recruits according to its own wishes so that the entire unit would be well integrated. An additional advantage was that space was made available in the Replacement Training Army for new trainees. This system could be employed only if the unit in question had received at least enough of its materiel equipment to make training possible. It was in this respect that the most serious difficulties were encountered necessitating the application of widely flexible methods, although everything possible was done to adhere to tried and tested principles.

The actual transfer of filler personnel to new units was a responsibility of the several deputy corps headquarters. Wherever possible the corps area headquarters handling the activation of a unit was required to furnish the recruits to bring the unit up to authorized strength. If this was not possible, other corps area headquarters were ordered by the office to make the necessary transfers.

It is obvious that the use of available personnel not only called for very careful quantitative computations but also involved a large number of other factors, some of a psychological nature.

d. Organization of Cadres. In planning the activation of new units, the most important question, aside from that of the availability of personnel and materiel in the Replacement Training Army, was where the necessary officers, NCOs, and key specialists for the technical services were to be obtained to form cadres. The value of a unit to be activated depended largely on the quality of the cadre around which it was built.

The best method of securing speedy integration and a reasonable degree of certainty that the new unit would soon be ready for action was to transfer complete elements from an existing unit for use as a cadre. The unit releasing elements for this purpose received an equal number of personnel from the Replacement Training Army and was required to reestablish from within its own ranks the elements it had released. Usually it was required to release personnel only; it retained its materiel for reestablishing the elements it had released. The General Army Office had employed this method with a great measure of success in building up the peacetime army and with equal success during the first phases of the war, when long interludes between campaigns enabled the field forces to release the necessary personnel without difficulty. Its success hinged upon extremely intimate cooperation between the Organization Branch of the Army General Staff and the General Army Office. One of its advantages was that it enabled soldiers to earn promotion at the front far more rapidly than would have been possible under normal circumstances.

Generally speaking, the established ratio of cadre personnel to recruits under the system was 1:3, which would mean that an entire battalion was required as a cadre in activating a three-battalion regiment or a complete battery in activating a three-battery artillery battalion. A ration of 2:3 was considered excellent. Once released from their parent units, the cadre elements were placed at the disposal of the Chief of Army Equipment and Commander of the Replacement Training Army and the General Army Office was responsible for their proper employment.

After the opening of the Russian campaign in the summer of 1942, this method could be applied only in exceptional cases; in general only when units or elements were released because reorganizational measures in the field forces or, on a limited scale, when units employed as occupation forces in the western theater released personnel for the purpose. (Cadre personnel obtained from the latter source were usually of lower quality.) The last divisions activated with cadres obtained in the old way were transferred to the field forces. The Chief of Army Equipment and Commander of the Replacement Training Army thereupon instructed the General Army Office to study the possibility of using Replacement Training Army personnel alone in activating new divisions speedily, in an emergency, for transfer to the field forces. As a result of the study, preparations resembling a mobilization plan were ordered for the Replacement Training Army. Upon release of certain codewords, such as Rheingold or Walkuere, divisions were to be organized according to the regular wartime tables of organization but from Replacement Training Army personnel and materiel supplies alone.

At its best, the implementation of this "Mobilization Plan for the Replacement Training Army" could have served only as an emergency measure. The best available instructor personnel were held in reserve for the planned mobilization and could be replaced only gradually and with extreme difficulty. As a result the receiving and training capacity of the Replacement Training Army sank to the lowest level possible, and still the cadres thus provided could not even approach the standard of personnel from the field forces. The same was true of materiel much of which had to be taken from the materiel used for training purposes. On several occasions, however, divisions were actually organized at short notice in the manner just described and shipped to the field forces. The preparations for putting the new plan into operation also made it possible to alert the Replacement Training Army speedily for use in special cases of emergency, such as hostile seaborne landings or the penetration of enemy forces into the zone of interior. It must be admitted therefore that the measures did serve a practical purpose, especially since the office always succeeded in restoring the replacement units to a status which made it possible for them to perform their real mission.

In addition to this emergency measure, there were further possibilities of obtaining cadre personnel for new units. Thus, when it became necessary to reconstitute the Sixth Army, which had been lost at Stalingrad, all personnel of that army's divisions who had by chance been outside of the Stalingrad pocket, and particularly all convalescents, were used as cadre personnel. Psychologically this was a wise measure since it preserved the continuity of the traditions of the destroyed units.

Convalescents were excellent as cadre personnel in many other respects, although their use for this purpose was subject to two drawbacks. One of these was that the personnel thus obtained did not constitute an existing integrated element but first had to be welded together. The second disadvantage was that not only the units affected but also the personnel themselves were displeased if they were used in a new unit instead of being returned to their old units. For these reasons the office was reluctant to adopt this measure and suggested instead that badly battered and depleted units should be used as cadres. However, these suggestions were not approved.

From 1944 on, a way out of difficulties was sought through the establishment of shadow divisions in the zone of interior. These consisted of counterparts of division elements which, as shown by experience, suffered the heaviest casualties. The shadow divisions were not formed for specific divisions but for amalgamation with heavily-depleted divisions as the occasion demanded. The measure made it possible to maintain the integration and the traditional ties of existing divisions, but was nevertheless an improvised measure.

During the last months of the war, divisions were formed around cadres of personnel drawn from the Reich Labor Service or from Navy and Army schools which had been closed. Personnel obtained in this way were of excellent quality, and these measures could have proved successful if they had been introduced in time to enable the personnel to receive proper training and familiarize themselves with their new duties. However, by then the time element was so pressing that the activation of these units was also an improvisation and not an organizational measure in the true sense. Organization requires time. Merely placing men and materiel together is not sufficient--a point which the General Army Office had stressed persistently. Training and integration play a fundamental role in deciding the value of a newly activated unit, but during this period no time was available for these purposes.

As previously mentioned, a problem closely allied to that of the organization of cadres is the procurement of officers, officials,³ NCOs, and specialist personnel.

Officer replacements were handled by the Army Personnel Office in cooperation with the Training and Education Inspectorate, which was controlled directly by the Chief of Army Equipment and Commander of the Replacement Training Army and later by an Inspector General for Potential Officers and NCOs. The assignment of officials was handled by the Army Administration Office. The General Army Office maintained intimate contact with both of these agencies and informed them well ahead of time concerning the personnel requirements for units which were to be activated. Excellent cooperation was obtained.

The procurement of NCO replacements was a responsibility of the Branch for General Troop Matters of the General Army Office. The Training and Education Inspectorate handled only training in the NCO candidate schools in cooperation with the various arms and services branches and the Branch for General Troops Matters.

However, the crop of regular NCO candidates was nothing more than a drop in the ocean compared with the actual requirements during the war and for that reason the Chief of Army Equipment and Commander of the Replacement Training Army devised further ways and means to obtain additional NCOs. Under instructions from the General Army Office, all corps area headquarters were required to establish courses for training squad leaders. Fifty percent of the candidates in these courses were drawn from convalescents and fifty percent from new recruits who had completed their basic training. The courses were awarded a high priority in the allocation of instructors and weapons and proved valuable in providing additional personnel for the activation of units or assignment to existing units. Frequently, the courses trained complete elements to be cadres of newly activated units.

The training of candidates for the technical services, such as ordnance, maintenance, and radio technicians, was handled by the appropriate branches of the General Army Office and has been described in Chapter 2. In most cases, personnel in specialized army careers were controlled centrally by the appropriate branches of the General Army Office, which were able to furnish the required numbers.

³Uniformed civilian employees of the Army.

2. Materiel. The General Army Office had full control over all manpower reserves except officer personnel, officials, and NCOs in training. This situation remained unchanged until the office was relieved of its responsibilities with respect to the Conscription and Recruiting Office in the summer of 1944.

With respect to materiel the situation was entirely different. Here the authority of the General Army Office was restricted to drafting requisitions for the procurement of existing types and for the development, proving, and introduction of new types of equipment, and to administering and distributing materiel received from factories. Only in the case of a few articles of equipment, usually normal commercial types, did the office or its branches handle the actual procurement and then to a limited extent (Chapter 2).

Chart 22, a flow chart, shows the various processing stages in the development of a new type of tank and illustrates the course of development of any new article of equipment from the initial stage to its final introduction, for use, in the Army. At the same time it shows how the office collaborated with other appropriate agencies during the process.

Only the procurement of materiel for major organizational projects, such as the activation of new divisions or the reorganization or rehabilitation of old ones, and for the resupply of existing units will be described in this section. For this purpose it will be necessary to differentiate between weapons, equipment, and ammunition; motor vehicles; horses (grouped, although wrongly so, under the heading of materiel); and clothing and personal equipment.

a. Weapons, Equipment, and Ammunition. These three items will be treated together, under the term weapons. All weapons supplies were administered by the Ordnance Inspectorate through the several ordnance installations, the organization and missions of which have been described in Chapter 2, page 32. The control and issue of these supplies were a responsibility of the Policy Group, where such matters were handled by Division Ib, which compiled all data concerning the materiel available for organizational planning. As in the case of personnel, close cooperation with the Organization Branch of the Army General Staff was necessary, although all requisitions for the supply of materiel to the field forces were placed by the Army Chief of Supply and Administration.

This was the procedure, in broad outline. Basing its calculations on reported available supplies and expected increments through production and repair activities, the General Army Office computed figures of probable availability. At the same time it calculated the requirements

for resupply to existing units, on the basis of requisitions submitted by the Army Chief of Supply and Administration, as well as for the constitution, reorganization, or rehabilitation of units. The resultant figures were discussed with the Organization Branch of the Army General Staff which, if necessary, took steps to coordinate the requirements of the Army Chief of Supply and Administration with the possibilities of supply. After quantities required for resupply purposes were deducted, it was possible to calculate allocations for intended organizational projects and to determine target dates for their completion. For major projects all calculations were based customarily on the equipment requirements of a division. The other factors which had to be taken into consideration have been mentioned in Section I of this chapter.

In the supply installations of the Ordnance Inspectorate, weapons and equipment were assembled in what were called equipment outfits, according to the tables of organization and equipment for the several types of army units. As soon as the personnel requirements of a newly activated unit were fulfilled, the ordnance supply installations forwarded the appropriate equipment outfit in accordance with orders from the General Army Office. This method was the most satisfactory from the point of view of the unit being activated, but could only be applied if the required supplies were actually available in the supply installations before the activation began. Heavy materiel losses suffered in Russia increased the resupply requirements of existing field units immensely, so that from then on the requisite supplies were usually not available in the supply installations prior to the activation of new units. In this situation, units being activated had to receive their equipment in installments, as it arrived from the factories. The time at which the activation of a new unit could be completed, therefore, now hinged more on the rate at which weapons and other materiel could be produced than on the procurement of personnel.

During this phase of the war it also frequently occurred that weapons intended for a certain unit had to be diverted to some more urgent purpose while the unit was being activated. In such cases the demands of the various agencies described in Chapter 3 clashed and it was extremely difficult to obtain clearcut decisions. As in the case of cadre personnel it became necessary, as an expedient, to equip units with weapons being used in the Replacement Training Army, in so far as these were of any use in actual combat (page 97 on Rheingold and Walkuere). This expedient, in turn, made gradual reequipment of the Replacement Training Army necessary.

In the distribution of weapons it was necessary to make sure that the Replacement Training Army received its share of the very latest, newly-introduced weapons in order to avert the danger that replacements transferred to the field forces would suddenly find themselves with types of weapons with which they were unfamiliar. To explain this viewpoint to higher levels of command was very difficult and quite frequently the General Army Office was accused of withholding weapons from the field forces. This accusation grew out of the fact that the value of proper training was seriously underrated in the highest levels of command, to the detriment of the common cause. These circles failed to understand that a soldier must be thoroughly conversant with his weapons and equipment if he is to make the best possible use of them. Many heated arguments arose from the fact that the high political command considered a new unit ready for combat duty the moment it received its last weapons, which view contrasted sharply with the views of the General Army Office. The impatience of the highest command and occasionally the exigencies of the moment frequently made it impossible for the office to press its point; as a result, the final shipment of weapons reached a unit after it had been cleared for shipment to the front.

Frequent criticism was leveled at the General Army Office on the ground that the delivery of weapons to troops was delayed unnecessarily by their first having to go through the ordnance supply installations after acceptance from the factories. Even though this system did lead to apparent delays, it was necessary. The functions performed by the ordnance supply installations in the established supply line have been described briefly on pages 32-35. It is obvious that their exclusion would have placed troops at serious disadvantage. The armament industry was not equipped to perform these functions and it is questionable whether it would have been practicable for it to do so. A sudden change of system during the war was not possible. Several attempts to bring about a change failed.

b. Motor Vehicles. One of the most serious bottlenecks was in motor vehicle supply. In this area the German Army lived from hand to mouth from the very outset. Even during the early stages of the war the scope and nature of organizational projects depended largely on the extent to which motor vehicles could be allocated. Motorization, moreover, remained one of the most serious difficulties throughout the war.

Within the General Army Office all problems of motor transportation were handled by the Group for Motor Transportation with its Branch for Army Motorization, and later by the Chief of Army Motorization and the Motor Transport Branch he controlled (pages 44-46). These agencies of the General Army Office performed their functions through the zone of

interior motor parks of the several corps area headquarters and worked with a great measure of independence, since Army High Command, Wehrmacht High Command, and civil authority were vested in the Chief of the Group for Motor Transportation and later in the Chief of Army Motorization. The Policy Group of the General Army Office exercised only supervisory functions and determined priorities in a manner similar to that described for weapons.

The ordnance supply installations were responsible only for the procurement of special types of vehicles and special bodies or equipment to be mounted on commercial type chassis. The procurement of commercial types of vehicles, which constituted by far the larger part of the motor vehicle equipment of the Army, was handled by the Plenipotentiary General for Motor Transportation and by the Group for Motor Transportation.

The major difficulty in the field of motor transportation was the large variety of vehicle types produced. The main purpose for which the Plenipotentiary General for Motor Transportation had been appointed was to bring about a standardization of types, but the standardization had not been accomplished by the time the war broke out. During the war, the situation was further complicated by the necessity of using foreign, and especially French types. Since standardization for the entire Army was impossible, the General Army Office endeavored, with only partial success, at least to standardize motor vehicle equipment within individual units.

c. Horses. In the General Army Office horses were the concern of the Riding and Driving Branch (Inspectorate 3) as described on page 40. Like the Group for Army Motorization, this branch worked with a great measure of independence:

Although horses were in short supply during the war, this shortage did not affect organizational planning as seriously as did the problem of equipment with weapons and motor vehicles. The working procedures in their procurement were similar to those described for weapons and motor vehicles. The only point worth mentioning is that special consideration had to be given to the requirements of agriculture, since in many cases agricultural enterprises had to adapt themselves to the use of horses instead of motor traction during the war.

Because of acute shortage in leather supplies, the procurement of harnesses of all types presented more difficulties than did the procurement of horses. (See discussion of weapons and equipment under a, page 100.)

d. Clothing and Personal Equipment. The activities of the Clothing Branch have been discussed, in their more important aspects, on pages 37-38. The procurement of clothing played no important role in organizational planning.

One important consideration, however, was that, in addition to re-supplying the field forces and clothing new units, providing adequate clothing for the replacements sent forward to existing field units was also necessary. To make sure that the field forces would receive regular supplies of clothing without unnecessary burden on the normal supply channels, an arrangement had been made whereby all personnel of field units who were on home leave were to exchange badly worn articles of clothing at their appropriate replacement unit headquarters. For this purpose the replacement units were furnished a supply of field clothing, which was replenished at regular intervals. These requirements had to be included in the calculations of the Clothing Branch.

Measures introduced to cope with the growing shortage in textiles and leather included the use of substitutes, the reduction of the number of clothing issues to troops, and the simplification of patterns to economize in materials. A new uniform was introduced in 1943-1944, primarily because of the necessity of economizing in textiles and leather.

Cooperation between the Clothing Branch and the agencies handling organizational problems had to be particularly close when troops had to be furnished special purpose clothing, such as tropical clothing for troops intended for employment in Africa or winter clothing for units employed in Finland and Russia. If the intended employment of a unit was known from the outset no serious problems arose in this respect, but difficulties were encountered when this point was decided only shortly before the unit was ready for shipment. This usually happened when critical situations developed on the eastern front and made it impossible to supply units with the proper clothing at the point of their activation, because of the short period allowed by the Supreme Command for their transfer to the eastern front. In such cases the General Army Office was required to hold the necessary winter clothing ready on rail cars at points in the eastern parts of Germany, where the cars could be coupled to the troop transport trains on their way eastward. The office repeatedly pointed out the unreliability of this arrangement and employed it reluctantly under pressure from higher levels. Events very soon proved how justified the anxiety of the office had been. Numerous times the changing situation made the rerouting of transport trains necessary, with the result that the troops entered combat under Russian winter conditions without proper winter clothing. The clothing, meanwhile, remained unused at some rail depot on the originally intended route. The question arises

whether it would not have been more profitable for the command to have properly equipped and clothed troops, even though they arrived a few days later.

V. RELATIONSHIP OF THE OFFICE TO ACTIVATIONS

Neither the Army High Command nor the General Army Office at any time carried out the actual activation of units. The agencies responsible were the deputy corps headquarters controlling the corps areas or similar organizations. Orders addressed to deputy corps headquarters concerning the constitution of new units contained in their main body basic information as to the nature and size of the units to be organized. Usually an organizational chart was included to show how the units were to be numbered, the tables of organization to be applied, the deputy corps headquarters to be held responsible for the individual activations and, when necessary, the locations at which the units were to activate. (Large units, such as entire divisions, were activated usually in one of the maneuver areas.) The main body of the activation orders also contained information concerning the procurement of cadre personnel, determined deadlines by which the units were to be ready for action, and specified intervals at which progress reports were to be submitted.

Orders of implementation usually accompanied the main body of the activation order and contained detailed information about the sources from which personnel and materiel were to be drawn and about the agency by which, and form in which, they were to be provided. The supply of weapons, motor vehicles, and horses was regulated by separate orders of the Ordnance Inspectorate, the Group for Army Motorization (later the Chief Motor Transport Officer), and the Riding and Driving Branch.

The foregoing procedures applied only to the activation of units within areas under the jurisdiction of the Chief of Army Equipment and Commander of the Replacement Training Army. When units were activated within the field forces, appropriate orders were issued by the Organization Branch of the Army General Staff. When units were activated by the field forces with a great measure of support from the Chief of Army Equipment and Commander of the Replacement Training Army, the Organization Branch of the Army General Staff generally issued the basic orders or the main body of the orders, while the General Army Office issued the orders of implementation. On the other hand, the Organization Branch of the Army General Staff ordered the release of cadre personnel from field units for units to be activated by the Chief of Army Equipment and Commander of the Replacement Training Army.

After the opening of the Russian campaign units were activated, reorganized or rehabilitated with growing frequency in the western occupied territories. Although the military headquarters controlling these areas were not under the command of the Chief of Army Equipment and Commander of the Replacement Training Army, usually he was instructed to carry out these projects. The advantage of activating units in occupied territories was that the troops involved could serve simultaneously as occupation units. This procedure was quite in order as long as peace and quiet prevailed in the territories concerned. The disadvantages were that the locations were so far distant from the home sources of supply and that the task of carrying out the activation had to be entrusted to headquarters which were not controlled by the Chief of Army Equipment and Commander of the Replacement Training Army, did not have available the appropriate personnel and materiel--which had to be forwarded from the zone of interior--and did not have the experience of the home corps area headquarters in such matters.

The General Army Office took two measures to surmount these difficulties. One of these was the establishment in Paris of an Organization Staff West, the responsibilities of which have been described on pages 60-61. The second measure provided that a zone of interior corps area headquarters was to be determined for each unit organized in the occupied territories. Primarily the zone of interior corps area headquarters was to fulfill the personnel requirements of the unit concerned.

In the activation of major units, namely divisions, the deputy corps headquarters in command of the corps area concerned usually assigned a special activation staff consisting of officers and army officials with experience in this type of work. This staff did all preparatory work and supervised the process of activation until the newly created division staff was capable of functioning smoothly alone. Usually it then continued to exist for some time in order to advise and support the new division staff. In smaller projects, unit staffs of the Replacement Training Army performed the functions of a special activation staff.

The period of activation, reorganization, or rehabilitation of a unit varied according to the requirements of the command and the availability of personnel and equipment. So far as personnel and equipment were concerned, the deciding factors were the nature of the cadres required, the time within which filler personnel could be made available, their status of training, and, finally, the time within which the required equipment could be made available. After these time requirements had been calculated, the General Army Office added a suitable period for training and integration. For this

latter purpose a period of four weeks was considered desirable. As previously mentioned, the command frequently disapproved the allowance of a period for training and integration, so that the termination of the activation process was determined by the time within which the requisite motor vehicles could be furnished for the new unit.

As a rule, all major units and, if possible, all smaller units were inspected by special staffs of the General Army Office shortly before the termination of their activation in order to uncover and rectify existing deficiencies. The work of these special staffs has been described on page 60.

The activation responsibility of the General Army Office ceased as soon as the unit in question was reported to the Organization Branch of the Army General Staff as ready for the field. The assignment of the unit and all matters relating to its march or transportation orders were handled by the Army General Staff.

VI. INDEXES MAINTAINED BY THE OFFICE

All units of the German Army were registered in Division Ic of the Policy Group of the General Army Office, so that it was possible to obtain there a clear picture of the organization of the entire Army. The information in the various indexes was as follows:

1. The Basic Data Index (Stammkartei) contained a basic data card on each unit. On this card were entered:

- a. The directive or order on the basis of which the unit was activated, reorganized or deactivated;
- b. The parent unit according to the tables of organization;
- c. The unit's zone of interior corps area headquarters.

2. The Number Index (Nummerkartei) listed all units of all arms and services according to their identification numbers. The purpose of this index was to prevent any two army units of a similar type from having the same identification number. Whenever a new unit was organized or an existing unit reorganized in such a manner that it had to be redesignated, it was mandatory, even for units activated by the field forces, to obtain an identification number for the new or reorganized unit from Division Ic. In order to prevent unauthorized persons from obtaining a general picture which might facilitate the recognition of interrelations between units, uniformity in the numbering system had to be avoided. Wherever possible the use of a number used for a former unit was avoided.

3. The Front Directory or Unit Locator Index (Frontnachweiser), was maintained up to date at all times, showed to which army group or army a unit was assigned at any given time. This directory was classified top secret and distributed to only a small number of headquarters. It contained important items of information useful in directing the movement of replacement transports and personnel returning to their units in the field (page 59).

4. The Replacement Unit Directory (Ersatznachweiser) showed the appropriate replacement unit for each field unit and thus established a close link between the field forces and the Replacement Training Army.

CHAPTER 5

COMMENTS

An attempt has been made in the preceding chapters to portray the missions of the General Army Office as a part of the Army High Command and to describe the methods employed by the office in performing them. The study shows how, within the Army High Command, the General Army Office handled the entire field of army organization, particularly the practical work connected therewith.

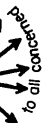
The centralized handling of all these diversified functions within one office and under a uniform control proved to be a wise arrangement. It was the only possible way to insure that all the details which the organization of an army involves would be brought into and maintained in proper coordination. The difficulties which arose did not stem from flaws in the General Army Office itself but from factors in the overall structure of the wartime top-level command, as is brought out most conspicuously in Chapter 3 of this study. A few salient features now will be mentioned in closing the study.

The strength of the General Army Office resided in the fact that it had full control over the means required in organizational work--that is, over personnel, materiel, and, in peacetime, funds, and that it administered those means itself. This factor of control made thorough, impartial, and logically appropriate work possible. However, it is just as essential that the agency which controls the necessary means of organization should have an equal status, at higher headquarters, with the agencies which request the organization of new units. Most of the difficulties which have been described arose during the war when the Chief of Army Equipment and Commander of the Replacement Training Army gradually was pushed aside and finally was denied direct access to the Supreme Command.

Another weighty and harmful influence during the war was the failure of leading circles to appreciate the importance of the time factor. As a result, systematic organization deteriorated into improvisation. Improvisation may become necessary in extreme urgency, but improvisations are always costly and less satisfactory than properly planned organization; therefore they should be resorted to

only in an actual emergency. Realizing this, the General Army Office at all times pressed for careful and well-considered organizational work, which would be possible only if the office was informed in good time of the views and intentions of the command. Even in matters of organization a certain measure of flexibility can be retained and existing systems can be adapted to changing circumstances, provided the necessary groundwork is done in good time. In many cases, and particularly during the war, the command failed to inform the office at the proper time. Furthermore, the time came when the office no longer had any opportunity of presenting its suggestions and views directly to the command through the Chief of Army Equipment and Commander of the Replacement Training Army. If its suggestions ever were submitted, they usually were rejected. On several occasions long-range plans submitted by the office were rejected and a few months later the very measures which the office had proposed for planning in advance had to be carried out as improvisations under the pressure of time and at a considerable extra cost in valuable personnel and materiel. The flaw here was lack of understanding of the time factor, which is just as important, if not more so, in the field of organization as it is in the field of strategy. The determination of how and by what agency matters of organization should be handled at top levels has various possibilities, but it is of categorical importance that the responsible agency must begin its work at the proper time and must be given a hearing. The fact that this was not the case in the German Army seriously impaired the work of the General Army Office many times during the war.

WEAPONS DEVELOPMENT



APPENDIX A

EXPLANATION OF CHART 22

Using the development of a new type of tank as an example, this flow chart shows how the various agencies of the Army High Command cooperated in developing weapons and items of equipment prior to the war and up to 1942. After 1942 the process was far more complicated because of participation of the Ministry for War Production. Only the most important participating branches of the Army Ordnance Office have been included. The Regulations Branch column shows the point at which the Regulations Branch of the Ordnance Office commenced work on the project. At this point all agencies of the Army High Command responsible for the regulations involved also began their work.

A line-by-line interpretation of the chart follows:

Lines 1-4. Development Specifications.

- Line 1. Initial requests and desires are submitted by field units to the Organization Branch of the Army General Staff or to the appropriate arms branch, in this case the Panzer Troops Branch (Inspectorate 6).
- Line 2. Instructions are issued to the appropriate arms branch, in this case to the Panzer Troops Branch by the Policy Group of the General Army Office. If the armored forces desire the development of a new type of machine gun on the basis of experience gained in the field, the initial step is taken by the Panzer Troops Branch, but the Infantry Branch, as the arms branch responsible for machine guns as an infantry type weapon, is instructed to carry out the development in agreement with the Panzer Troops Branch.
- Line 3. Under the Chief of Army Equipment and Commander of the Replacement Training Army, the Panzer Troops Branch is responsible for all stages of development until the new weapon is introduced for use in the Army.
- Line 4. The Panzer Troops Branch formulates the technical and tactical specifications. In this work it is assisted by the Organization and Training Branches, by the Chief of Army Transportation (in matters concerning rail transportation

of the new tank), and by the Policy Group of the General Army Office (in matters concerning organization and the inclusion of the new project in the development program in order to obtain funds). The Infantry Branch (for machine guns), and the Signal Branch (for radio equipment) commence work immediately and forward their instructions either directly or through the Panzer Troops Branch to the Army Ordnance Office. These details are not shown in the flow chart. The Engineer Branch is consulted immediately concerning the suitability of military bridge equipment for the intended new model.

Lines 5-8. Instructions to Industrial Circles.

- Line 5. The Panzer Troops Branch of the General Army Office forwards development instructions to Ordnance Office.
- Line 6. Panzer and Motorized Equipment Branch of Ordnance Office is instructed to develop the new model in collaboration with industrial circles. Infantry (Wa 2), Artillery (Wa 4), Signal (Wa 7) and Ballistical and Ammunition (Wa 1) Branches of Ordnance Office receive appropriate instructions. Chief Ordnance Engineer is consulted concerning standardization of parts.
- Line 7. Ordnance Office assigns development project to industrial circles.
- Line 8. First constructional data and models are submitted to Ordnance Office by factories.

Lines 9-12. Examination of Construction Data.

- Line 9. All branches appearing in Line 9 are called to a conference at the Ordnance Office to examine the constructional possibilities. A compromise has to be reached.
- Line 10. Results of conference are submitted to Ordnance Office as basis for final specifications.
- Line 11. Detail work now begins in Ordnance Office.
- Line 12. Following branches of Ordnance Office now begin work: Weapons and Equipment Branch and Ammunition Branch concerning procurement; Acceptance Branch concerning acceptance specification; Regulations Branch concerning technical regulations. In addition, Panzer Troops Branch begins preparation of field manuals and tables of equipment.

Lines 13-16. First Test Models.

- Line 13. Industry is instructed by Ordnance Office to construct test models (in this case three).
- Line 14. Three test models are delivered and tested by Ordnance Office.
- Line 15. After testing models for conformity with specifications, Ordnance Office submits models to appropriate agencies for inspection.
- Line 16. Agencies in line 16 are now consulted. Army Chief of Supply and Administration is consulted at this early stage concerning supply, particularly ammunition supply problems.

Lines 17-20. Incidental Requirements; Improved Test Models.

- Line 17. Chief of Army Transportation reports available rail flatcars inadequate for weight of new tank. Railway Administration is instructed through Railway Engineer Branch of General Army Office to develop suitable flatcars to be available when new tank is introduced.
- Line 18. Army General Staff instructs Engineer Branch of General Army Office to develop heavier bridge equipment.
- Line 19. On the basis of results obtained with first test models, Ordnance Office instructs industry to produce improved models. Panzer Troops Branch is now required to insure that all requirements of panzer field forces are met in construction.
- Line 20. Industry delivers new test models.

Lines 21-24. First Trial Series; Field Tests by Demonstration Units.

- Line 21. New models are tested by Ordnance Office with assistance of demonstration units. Policy Group of General Army Office and Army General Staff are informed currently. If new models conform to specifications, industry is instructed to produce first series for trial in the field. Acceptance conditions prepared by Acceptance Branch of Ordnance Office are already valid for first deliveries.
- Line 22. Ordnance accepts first series from factories and delivers it to Ordnance Inspectorate of General Army Office, where signal and other equipment is installed.

Line 23. Tanks are delivered by Ordnance Inspectorate to demonstration units. Panzer Troops Inspectorate issues orders for field trials.

Line 24. All agencies in line 24 participate in trials. Results of trials and report on desirable alterations are submitted to Panzer Troops Branch and Ordnance Office.

Lines 25-28. Experimental Series for Further Field Trials.

Line 25. Through Policy Group of General Army Office, Panzer Troops Branch requisitions from Ordnance Office additional series for further field trials.

Line 26. Ordnance Office orders second series from factories. This is the latest point at which the Armament Manufacturing Branch begins preparations for mass production (see line 12).

Line 27. After approval by Acceptance Branch, factories deliver tanks to Ordnance Inspectorate.

Line 28. Tanks are distributed to various units for trial. Panzer Troops Branch issues orders for field trials.

Lines 29-30. Introduction for Use in the Army.

Line 29. Experience reports are forwarded from field units to Panzer Troops Branch and Ordnance Office.

Line 30. If new type is found satisfactory, Panzer Troop Branch and Ordnance Office submit to Policy Group of General Army Office application for introduction.

Line 31. General Army Office issues orders concerning introduction of the new item of equipment.

During the period of development, the required quantities were calculated by the appropriate agencies in close cooperation, so that the Panzer Troops Branch was able to submit to the Armament Manufacturing Branch through the Policy Group of the General Army Office the first requisition for procurement of the new type.

APPENDIX B
GENERAL ARMY OFFICE
ARMS AND SERVICES BRANCHES

Legend:

- Period a. Status at Mobilization, 1939.
- Period b. Changes to Summer, 1940.
- Period c. Changes to Autumn, 1943.
- Period d. Changes to 1945.

- I. Designation of Branch.
- II. Units for which Branch Handled Organization, Training, Personnel, Materiel.
- III. Schools Controlled by the Branch.
- IV. Weapons, Equipment and Ammunition for the Development of which the Branch was responsible.
- V. Miscellaneous Responsibilities.

INFANTRY BRANCH (INSPECTORATE 2)¹

Period a	Period b	Period c	Period d
I. Infantry Branch	No change	No change	No change
II. All normal, light, mountain, fortress Infantry units; Normal, AA MG bns; Regional def units. ²		March 1943: Mtz Inf trf to Panzer Trps Br in exchange for cav units (horsemen and cyclists); New- ly asgd; Mortar bns; ski units.	New type units: AT battalions.
III. Inf School, Doebéritz; Army AA School, Alt- warp; Mountain Inf School, Mit- tenwald	No change	New schools: Récon & Cav School, Brom- berg; Winter Combat School, Ayrz/Heuberg	No change
IV. Small arms; AW up to 20-mm cal (MGs, SMGs, SAR) mortars, inf guns, AT rifles.	No change	No change	No change
Bicycles; range finders; pris- matic compasses; mountain, winter & ski equip; armorer- artificer equip for inf wpns.	No change	No change	No change
Ammo for all arms listed above; hand & rifle grenades	No change	No change	Newly developed: Panzerfaust (re- coilless AT gre- nade launcher)

¹See p. 116 for legend.

²Mainly for guard duty in COMZ & ZI.

INFANTRY BRANCH (INSPECTORATE 2)--Continued

Period a	Period b	Period c	Period d
V. Small arms & MG tng for all arms;	New activities: No change Air trans load- ing regulations for all ground forces (Experi- mental Det, Darm- stadt)	No change	No change
Unit AA defense for all arms;			
Distr of inf wpns tng ammo for all arms			

RIDING & DRIVING BRANCH (INSPECTORATE 3)³

	Period a	Period b	Period c	Period d
I. Riding & Driving Branch (Inspector- ate 3)	No change	No change	No change	No change
II. Remount depots & offices; stud farms & colt rais- ing farms. Remount purchas- ing commissions	No change	No change	No change	No change
III. Riding & Driving School, Krampnitz; Spanish Dressage School, Vienna	No change	No change	No change	No change
IV. Items of general army equipment, namely, riding & pack animal equipment; horse- drawn vehicles of all types; vehicle lights; tent equip- ment; service wagon equipment; tools; camouflage equipment; office, cartographic & duplicating equip- ment; air drop con- tainers	No change	No change	No change	No change

³See p. 116 for legend.

RIDING & DRIVING BRANCH (INSPECTORATE 3)--Continued

Period a	Period b	Period c	Period d
V. Training in riding & driving for entire army; re-mount services; purchase and training of horses and pack animals and supply to the entire army; mustering and requisitioning of horses; captured horses	No change	No change	No change
Supervision of horse breeding within Germany	No change	No change	No change
Dressage & racing events	No change	No change	No change
Special personnel supervised: technical sergeants (riding); army saddlers	No change	No change	No change

Remarks:

1. The branch responsibly handled the procurement of horses for the entire armed forces.

2. From the beginning of 1940 to the beginning of 1945, the Riding & Driving Branch and the Veterinary Inspectorate were combined in a group under the Veterinary Inspector.

ARTILLERY BRANCH (INSPECTORATE 4)⁴

	Period a	Period b	Period c	Period d
I.	Artillery Branch (Inspectorate 4)	No change	No change	No change
II.	All horse-drawn, mtz, mountain; assault, rail, fortress OBSN arty units; map & surv bns; MET plat; magnet surv btrys	Newly assigned: Army Coast Arty	Newly assigned in 1941: Army AAA separate branch after 1943, see tank guns	Rocket units (V-wpns) See footnote 2.
III.	Arty School Jueterbog; Rail Arty School Ruegenwalde	Additional: Arty School II, Berlin (Arty School), Jueterbog redesignated Arty School II	Additional: Arty School III Gross Born; Army Coast Arty School, Ruegenwalde; Mountain Arty School, Dachstein, Assault Gun School, Burg	Additional: Coast Arty Direction Finding Equip School
IV.	Arty guns: light up to 105-mm; med up to 170-mm; hvy, over 170-mm; assault guns	New Types: Recoilless light guns	No change	No change
	Optical & print equip for all arms	No change	No change	No change
	Surv, flash sound ranging equip; MET equip	No change	No change	No change
	Ammo for all guns listed above			

⁴See p. 116 for legend.

ARTILLERY BRANCH (INSPECTORATE 4)--Continued

Period a	Period b	Period c	Period d
V. MET serv for entire army; Surv, air photo, maps for entire army	No change	No change	No change

Remarks:

1. Arty Gp, established 1 Jul 44, included Arty Br & Riding & Driving Br, Inspectorates 4 & 3, respectively.
2. A Rocket Wpns Br (Inspectorate 14), in planning stage at end of war, was to be included in Arty Gp.
3. Panzer Troops Br (Inspectorate 6) procured chassis for assault and armored artillery (see Page 116).

ENGINEER BRANCH⁵

	Period a	Period b	Period c	Period d
I.	Engineer Branch (Inspectorate 5)	No change	No change	No change
II.	All horse-drawn, mtz, smbl, armd enrg units, brg columns, brg const, equip park units, Reich Labor Serv const units	Additional: Amph engrs, assault boat units, river scty units (later re- named local engrs)	Additional: Goliath (cable-con- trolled dml carr) units Trf to Fortifications Inspectorate: Const Trps (re- named const engrs)	No change
III.	Engr School, Dessau-Rosslau	No change	Additional: Hvy Brg Const School, Speyer	No change
IV.	Flame throwers, Fort close-com- bat wpns Brg, ferry, etc equip; entrench- ing tools; hand searchlights; pile drivers; motor saws; mine detect equip Hollow & adhesive charges, all type mines	No change	No change	No change

⁵See p. 116 for legend.

ENGINEER BRANCH--Continued

	Period a	Period b	Period c	Period d
V. Engr serv & fld fort const for all arms		No change	No change	No change
Proc, admin & sup of com- mercial types of equip & const mtl for fld fort & temp brg const				
Supv spl pers: Engr maint tech sgts				

PANZER TROOPS BRANCH⁶

Period a	Period b	Period c	Period d
I. Panzer Trps, Cav & Army Mtz Br (Inspectorate 6)	Mobile Trps Br (Inspectorate 6)	Panzer Trps Br (Inspector- ate 6)	No change
II. All panzer, mtz inf, mtrol inf units; mtz recon bns; AT units; Cav (horse & cycle); tank maint units	All but panzer units trf to new Army Mtz Br (see remark 1 & Page 111)	Cav (horse & cycle) trf to Inf Br in exchange for mtz inf units Trf from Rail Engr Br: Rail AT units Newly dev: Radio guided tank units	Additional: 88-mm SP assault gun units
III. Wuensdorf & Kramnitz Panzer Schools; Putlos Panzer Gun- nery School	No change	No change	No change
IV. Tanks, armd recon cars, armd pers carr, armd & SP mounts, all tank & AT guns, assault gun & armd arty chassis, tank & AT gun ammo	No change	No change	No change

⁶See p. 116 for legend.

PANZER TROOPS BRANCH--Continued

Period a	Period b	Period c	Period d
IV. Continued			
Mtr veh of all types, including prime movers; trailers; SP mounts; track & HTRK veh; all mtr veh equip	Trf to new Army Mtz Br	No change	No change

V. Supv of spl pers: tank maint tech sgts & men	No change	Additional: Serv as staff of Inspector of Panzer Trps (see remark 3	No change
Listing & proc of mtr veh from factories & trade; Distr of mtr veh for entire armed forces; mtr maint svc, incl proc of spare parts; dist of fuel & tires; tng of drivers; supv of mtr maint tech sgts, mtr work-shop foremen	Trf to new Army Mtz Br (see remark 1 & Page 111)	Additional: AT defense for entire army	No change

Remarks:

1. After the Polish campaign, the branch was divided into a Mobile Troops Branch and an Army Motorization Branch. The two branches and the Transportation Branch (Inspectorate 8) which later was renamed Supply Branch, were placed under the newly established Group for Motor Transportation.

2. In September 1942 the Group for Motor Transportation was discontinued and the Panzer Troops Branch (Inspectorate 6) assigned directly to the General Army Office.

PANZER TROOPS BRANCH--Continued

3. After March 1943 the branch was required to act as the working staff of the Inspector of Panzer Troops, who was assigned to the Inspector General of Panzer Troops. The branch chief acted simultaneously as chief of staff to the Inspector of Panzer Troops.

4. Weapons for armored vehicles were handled by the arms branches concerned, namely, the Infantry, Artillery and Engineer Branches (Inspectorates 2, 4 and 5, respectively). The Panzer Troops Branch handled only special parts required for installation and weapons intended specifically for tanks, such as tank guns.

5. The branch also handled antitank guns for the antitank units of the infantry.

SIGNAL BRANCH (INSPECTORATE 7)⁷

	Period a	Period b	Period c	Period d
I.	Signal Branch (Inspectorate 7)	No change	No change	No change (see remarks)
II.	All units of Sig- nal Corps (tel const & opn, rad, fld trunk wire, telegraph const & opn, carr freq, line-of-sight signal, intercept & sig intel units) Fort sig units; sig cmd staffs; perm rad & intop stations; prop, interpr units; woman sig aux; carr pigeon & msgr dog teams	No change	No change	No change (see remarks)
III.	Army Sig Comm School, Halle; Woman Sig Aux School, Giessen	Additional: Army Sig Comm School, Glatz		
IV.	Tel, rad, coding & converter, intercept and direction-finding equipment; modulated light-ray comm sets; radio-telephones; microwave sets; scramblers; rad rec, photo equip; prop projectors; visual markers for aircraft; spl sig mtr vehicles Tracer & sig ammo	No change	No change	No change (see remarks)

⁷See p. 116 for legend.

SIGNAL BRANCH (INSPECTORATE 7)--Continued

Period a	Period b	Period c	Period d
V. Supv of Army dogs & pgnas (including repl); const & opn of tel & tele- type networks, con- trol of rad comm within area of Repl Army; crypt equip for Wehr- macht High Cmd Army & public of- fices; coding & de- coding serv; co- operation w/Reich Postal Serv Supv of splpers: Sig maint tech sgts; rad tech sgts, pigeoneers	No change	No change	See remarks Supv of dogs & carr pgnas trf to the SS

At the end of 1943 the Signal Branch was sub-divided to form three branches, namely, a Signal Branch (Inspectorate 7), a Sig Equip Br and an Army Sig Comm Br, which all three were placed under a newly organized Group for Army Signal Communications. The distribution of functions cannot be determined, but probably responsibilities were divided into troop matters, arms & equipment, operational tasks.

SUPPLY BRANCH (INSPECTORATE 8)⁸

	Period a	Period b	Period c	Period d
I.	Transportation Branch (In- spectorate 8)	No change	Sup Br.	No change
II.	All horse-drawn & mtr trans columns; sup bns & regt; mtr trans regts; water sup columns; APO svc; police service (MP svc, post headquarters) Baker & butcher units; ration of- fices; rail kitchen cars	No change No change	No change Trf to Senior Officer of Admin Trps (see Page 131)	No change No change
III.	Army Sup School, Hanover	No change	No change	No change
IV.	APO equipment, assisted by Reich Postal Svc Baker & butcher equip	No change No change	No change Trf to Senior Of- fice of Admin Troops	No change No change
V.	Mtr trans of trps; maint of card in- dexes on long dis- tance truck con- voys (asstd by Reich Statistical Bureau; Entire APO Svc (asstd by Reich Postal Svc); info Office for Army mail;	No change	No change	No change

⁸See p. 116 for legend.

SUPPLY BRANCH (INSPECTORATE 8)---Continued

Period a	Period b	Period c	Period d
V. Continued			
Supv of splpers: Postal tech sgts	No change	No change	No change
Bakers, butchers & meat inspectors	No change	Trf to Senior Officer of Admin Trps	No change

Remarks:

From the autumn of 1939 to September 1942, the Supply Branch was controlled by the Group for Motor Transportation.

SENIOR OFFICER OF ADMINISTRATIVE TROOPS⁹

	Period a	Period b	Period c	Period d
I.	-	-	Senior Officer of Administrative Troops	No change
II.	-	-	All baker & butcher units; ration Offices; rail kitchen cars	No change
III.	-	-	-	-
IV.	-	-	Butcher & baker equipment	No change
V.	-	-	Supv special personnel; bakers, butchers, meat inspectors	No change

Remarks:

Administrative Troops were handled by the Transportation Branch (Inspectorate 8) - see Page 131) until 1 February 1942. At that time the Senior Officer was appointed and assigned directly to the General Army Office. All routine office work connected with the post continued to be handled by the Inspectorate 8.

⁹See p. 116 for legend.

CHEMICAL WARFARE & AIR RAID PROTECTION BRANCH¹⁰
(INSPECTORATE 9)

	Period a	Period b	Period c	Period d
I.	Cml Warfare & Air Raid Protection Br (Inspectorate 9)	No change	No change	No change
II.	All chemical war- fare units (later renamed projector troops)	No change	No change	No change
III.	Gas Defense School Celle; Chemical Warfare School, Celle	No change	Additional: Gas Defense School, Bromberg	No change
IV.	Cml projectors (all calibers); rocket launchers	No change	No change	No change
	All smoke screen- ing equip	No change	No change	No change
	Gas protection equip & chemicals; Decon equip & chemicals	No change	No change Except terrain decon equip & chemicals trf to Medical Br	No change

¹⁰See p. 116 for legend.

CHEMICAL WARFARE & AIR RAID PROTECTION BRANCH--Continued
(INSPECTORATE 9)

Period a	Period b	Period c	Period d
V. General problems of chemical warfare & rocket propulsion; Gas defense for entire army; Passive air raid protection in army installations; Smoke screening activities for entire army.	No change	No change	No change

Remarks:

The branch responsibly handled all matters concerning chemical warfare agents and smoke screening for the entire armed forces.

RAILWAY ENGINEER BRANCH (INSPECTORATE 10)¹¹

	Period a	Period b	Period c	Period d
I. Railway Engineer Branch (Inspectorate 10)		No change	No change	No change
II. All railway engineer, construction, operation units; field railway operation & machinery units; railway workshop, cable & narrow gauge units; armored train units		No change	Armd train units trf to Panzer Trps Branch	No change
III. Railway Engineer School, Rehagen/Krausdorf		No change	No change	No change
IV. Field & cable railway & railway bridge equip		Additional: Rail motor trks w/Army Mtz Br	Additional: Railroad track dml locomotives	No change
V. Supply & admin of the railway engineer equip parks in the ZI		No change	No change	No change

¹¹ See p. 116 for legend.

TECHNICAL TROOPS BRANCH (INSPECTORATE 11)¹²

	Period a	Period b	Period c	Period d
I.	-	-	Technical Troops Branch (Inspectorate 11)	No change
II.	-	-	All units of the technical bat- talions	No change
III.	-	-	School for Technical Troops, Pirna	No change
IV.	-	-		-
V.	-	-	Repair, maintenance, operation and (in the case of withdrawals) demolition of industrial and utility installations, such as water, electricity and gas installations vitaly important to the troops in the zones of operations	-

Remarks:

1. As a separate arm, the technical troops included highly specialized technicians such as operators of various types of machinery, special mine detector personnel, public utilities experts, divers, welders and assault boat pilots. They were organized in battalions and normally were attached to higher field headquarters.

¹²See p. 116 for legend.

TECHNICAL TROOPS BRANCH (INSPECTORATE 11)--Continued

Two types of battalions existed, namely Battalione, numbered with Arabic numerals, which within their unit areas engaged in such activities as salvage work, the clearing of wrecks in harbors and the repair of gas and water works, and Abteilungen, numbered with Roman numerals, which specialized in the repair and reconstruction of damaged buildings and the manufacture of special machine tools.

2. The arm was established in 1941, when the army took over these units of the Technical Emergency Corps (Technische Nothilfe) which were employed in the field forces. Initially, the Technical Emergency Corps had been intended for civilian defense in the ZI and for bomb disposal and the maintenance and restoration of public utilities and similar activities in theaters of operations and occupied territories.

MOTOR TRANSPORT BRANCH (INSPECTORATE 12)¹³

	Period a	Period b	Period c	Period d
I.	-	Army Motor- ization Branch	Motor Trans- port Branch (Inspectorate 12)	No change
II.	-	All mtr maint park units; spare part & tire depots	Additional: All units of newly created Mtr Trans Trps	No change
III.	-	Army Motor- ization School, Wuensdorf	No change	No change
IV.	-	Mtr veh of all types, including tractors & trail- ers; SP mounts; full & half-track veh; mtr veh equip of all types	Additional: Mtr veh winter equipment	No change
V.	-	Proc of veh from factories & trade; distr to entire armed forces; mtr veh rep, including spare part proc; fuel & tire distr; tng of drivers for army Spl pers supv: mtr maint tech sgts; mtr shop foremen;	Mtr veh rep & spare part proc res- ponsibilities trf to Chief of Mtr Maint	Matters con- cerning entire armed forces trf to Chief of Wehrmacht Transportation

¹³ See p. 116 for legend.

MOTOR TRANSPORT BRANCH (INSPECTORATE 12)--Continued

Remarks:

1. After the 1939 campaign in Poland, the Army Motorization Branch was separated from the Panzer Troops, Cavalry & Army Motorization Branch and was assigned to the newly established Group for Motor Transportation (see Page 125).

2. In September 1942, the Group for Motor Transportation was discontinued and the Army Motorization Branch renamed Motor Transport Branch (Inspectorate 12) and assigned to the newly appointed Chief Motor Transport Officer. At the same time, certain of its responsibilities were transferred to the newly appointed Chief of Motor Maintenance.

3. In February 1943, the Chief Motor Transport Officer also was appointed Chief of Wehrmacht Transportation, in which capacity he was under the Wehrmacht High Command. The Chief of Motor Maintenance also was placed under the Wehrmacht High Command. The Motor Transport Branch remained an agency of the General Army Office, performing functions both for the entire armed forces and for the army under the Chief of Wehrmacht Transportation.

4. On 1 July 1944, the Chief of Wehrmacht Transportation and the Chief of Motor Maintenance became Wehrmacht High Command agencies exclusively. The post of a Chief Motor Transport Officer in the General Army Office was discontinued. The Motor Transport Branch remained an agency of the General Army Office but at the same time was under the newly appointed Chief Motor Transport Officer attached to the Army High Command. From now on the branch handled army matters exclusively.

ARMY ANTIAIRCRAFT ARTILLERY BRANCH (INSPECTORATE 13)¹⁴

	Period a	Period b	Period c	Period d
I.	-	-	AAA Branch (Inspectorate 13) see remark 1	No change
II.	-	-	All army antiair- craft artillery units transferred to the branch from the Artillery Branch (Page 121)	No change
III.	-	-	-	-
IV.	-	-	Cooperated with other agencies in matters concerning guns, equipment and ammo for AAA. Calibers above 20-mm were handled by Arty Br (Page 121). Automatic wpns with calibers below 20-mm were handled by Inf Br (Page 121)	No change

Remarks:

1. Initially, antiaircraft protection of army units was a responsibility of the Air Force, which assigned AAA units for this purpose. From 1941 on, the Army developed AAA units of its own. These units were handled by a special section of the Artillery Branch. The Army AAA Branch was organized from this section in 1943. On 1 July, the branch was placed under the newly organized Artillery Group.

2. The Air Force was responsible for the development, procurement and supply of all AAA weapons, equipment and ammunition.

¹⁴See p. 116 for legend.

FORTIFICATIONS INSPECTORATE¹⁵

	Period a	Period b	Period c	Period d
I. Fortifications Inspectorate		No change	No change	No change
II. All fortress engineer units		Additional: Rock-drill co; snow-clearing units	Additional: Constr Engrs trf from Engr Branch; Local Constr Engrs	No change
III. Fort Engr School, Berlin		No change	No change	No change
IV. Fort armament; installations in perm empl; Road constr, snow clearing & fort constr equip & materials		No change	No change	No change
V. Development & utilization of fortifications; preparation of development projects; arming & maintenance of fortifications Spl pers supervised: technical fortifications officials.		Additional: Employment of troops in bomb damage removal activities in ZI.	No change	No change

¹⁵See p. 116 for legend.

MEDICAL INSPECTORATE¹⁶

	Period a	Period b	Period c	Period d
I. Medical Inspector- ate	No change	No change	No change	No change
II. All med units; fld hosps of all types; hosp trains; amb trans units; med depots	No change	No change	No change	No change
III. Military Medical Academy, Berlin	No change	No change	No change	No change
IV. In periods a, b, c and d: All medical matters, including legal problems and general hygiene; physical fitness regulations; injuries and physical disabilities caused while in service; care of convalescents, assignment to health resorts; orthopedic supplies to discharged disabled personnel; reeducation of discharged disabled personnel; first- aid & seeing-eye dogs; air raid medical service; cooperation with the Red Cross and voluntary nursing service for the sick and wounded; international law in relation to the medical service; evacuation specialized personnel supervised; Medical Officers (in cooperation with Army Personnel Office); Medical NCOs and men; pharmacists.				

Remarks:

1. All medical matters were handled responsibly by the Medical Inspectorate for the entire armed forces.

¹⁶ See p. 116 for legend.

VETERINARY INSPECTORATE¹⁷

	Period a	Period b	Period c	Period d
I. Veterinary Inspectorate		No change	No change	No change
II. All vet units and hospitals of all types; remount depots; vet depots; horse-drawn transport units		No change	No change	No change
III. Veterinary Academy, Hanover; training forges for Army Farriers		No change	No change	No change
IV. Vet & Farrier equip; horseshoes & nails; gas protection equip for army animals; animal feeds		No change	No change	No change
Care of all army animals; prevention and control of animal epidemics; utilization of animal carcasses; meat inspection & control of meat rations;		No change	No change	No change
Cooperation with societies for the prevention of cruelty to animals		No change	No change	No change
V. Specialist personnel supervised: Veterinary officers, in collaboration with Army Personnel Office; farrier personnel		No change	No change	No change

Remarks:

1. The Veterinary Inspectorate responsibly handled all veterinary matters for the entire armed forces.

2. From the beginning of 1940 to the beginning of 1945, the Veterinary Inspectorate and the Riding & Driving Branch (Inspectorate 3) were combined in a group under the Veterinary Inspector.

¹⁷See p. 116 for legend.

APPENDIX C

TABLES OF ORGANIZATION AND TABLES OF EQUIPMENT IN THE GERMAN ARMY

CHAPTER 1

TABLES OF ORGANIZATION

I. GENERAL INFORMATION

The authorized strengths of the units of an army are important factors in the organization of an armed force. Together with the peace- and wartime order of battle they provide a basis for calculations of all kinds and at all levels, from the War Department and the Army General Staff through the higher and intermediate levels of command and administrative staffs down to company commanders and ordnance and maintenance sergeants.

In a broad sense, "Authorized Strength" includes not only the number of personnel and horses but also the number of arms and the amount of equipment a unit is allowed to have. It can be regarded as the core around which all financial and material requirements for the organization of an army are grouped. All computations concerning pay, food and fodder, arms, unit equipment, ammunition, clothing, and personal equipment are based on authorized strengths. Even the promotion of officers, officials, and enlisted men, depending as it does on the types of vacancies available, takes place on the basis of the established authorized strengths of units. The more carefully and the more thoroughly this foundation is prepared, the firmer will be the final organizational structure of the army. The Department of Defense is responsible for the authorized strengths established; and these, in a sense, are no more than a breakdown, to the lowest unit, of the personnel strengths and funds approved by the Parliament. This applies to all countries.

In Imperial Germany the authorized strengths were called tables of organization (Staerkenachweisungen). They were printed and bound as regulations and were given an identification number preceded by a "D" (abbreviation of Dienstvorschrift--service regulation). As far as is known to the author, they were numbered according to the type of unit and a certain series of numbers was allocated to each type. Thus, Regulations No-- to No-- would prescribe the strength of infantry units, other number series the strength of artillery or bakery or butcher units, and so on.

Physically the tables consisted of two parts: Part I specifying the grades and number of personnel and the number of horses, Part II the weapons, ammunition, and equipment to be assigned. As far as available for study, the forms used in foreign armies were similar to those of the German Army although in some cases they were radically simplified.

After World War I only peacetime authorized personnel strengths were established for the 100,000-man army Germany was allowed to maintain. Only years later did work commence on the preparation of data for a wartime army. During this preparatory stage, tables of organization and tables of equipment were treated separately and were known as peacetime tables of organization, peacetime tables of equipment, wartime tables of organization, and wartime tables of equipment.

Table 2--Table of Peacetime Organization

PART A

COMMAND STAFF INFANTRY BATTALION

a	b	c	d	e	f	g	h
	Main Column	Officers	Army Officials	NCOs	Men	Horses Riding	Draft
1.	Major, Com- mander	1					
2.	1st or 2d Lieutenant, Adjutant	1					
3.	Paymaster, Army Official, Inter- mediate Rank		1				
4.	Master Sergeant, Battalion Clerk			1			
5.	Sergeants			2 ¹			
6.	Other NCOs			2 ²			
7.	Men, in first year of mili- tary service				0		
8.	Men, in second year of mili- tary service				10		
9.	Horses, riding					3	
10.	Horses, light draft						4
		2	1	5	10	3	4

Table 2--Table of Peacetime Organization--Continued

In addition, 1 medical officer and 1 medical NCO included in authorized strength of appropriate medical battalion.

Remarks:

1. Including 1 supply sergeant.
2. Including 1 mess NCO.

The purpose of the present study is to illustrate the methods employed in establishing the tables, the form in which the tables were printed, and the manner in which they were administered and distributed. No written data were available at the time of writing. The work is based exclusively on the author's experience as a specialist on tables of organization and tables of equipment for the Motor Transport and Motor Maintenance Troops in 1931, as a specialist on the same subject in the General Army Office from about 1933 - 1938, and as chief of the General Army Office's Table of Organization Branch from then until the end of the war. Main emphasis will be on the wartime tables, since these were the principle responsibility of the Tables of Organization Branch.

II. PEACETIME TABLES

In the German Army the peacetime and wartime tables of organization differed materially, but the tables of equipment remained unchanged during peace and war.

As will be seen from Table 2, Page 146, the peacetime tables of organization were arranged as simply as possible. Part A of the table specified the number of military personnel to be assigned, Part B the number of civilian employees. All posts in which it was not absolutely essential to employ military personnel were reserved for civilians, including artisans, kitchen and cleaning workers, and clerical personnel.

The tables were prepared in the General Army Office by the Branch for General Troop Matters, with the assistance of the appropriate arms and services inspectorates. The most important aspects of the preparation were:

- (1) Determination of posts to be established for each arm or service;
- (2) Arbitration between the arms and services, each of which pressed for the assignment of large numbers of personnel;
- (3) Specification of posts to be filled by civilians;
- (4) Establishment of promotion programs for all grades;
- (5) Coordination of rates of promotion within grades;
- (6) Establishment of grades for civilian employees in accordance with tariffs valid for the entire German Reich, which were quoted in the tables of organization.

The peacetime tables did not specify the number of motor vehicles to be assigned to units. These were prescribed in special regulations.

III. WARTIME TABLES OF ORGANIZATION

In contrast with peacetime tables of organization, the wartime tables could be prepared initially without regard for budgeting problems or available funds. As a working basis, the first series of wartime tables presented what might be called the ideal solution. According to them each unit was to be assigned what was considered the most desirable number of personnel and the most desirable amount of equipment.

However, it was found soon that the ideal solution could not be applied in practice. The available supply of weapons and, more particularly, the supply of motor vehicles which could be expected to become available imposed certain inescapable restrictions, while the ideal solution called for motorization on the largest possible scale. So special tables of organization and equipment were prepared for motorized units and in their preparation the hard fact of existing shortages was taken into account.

Apart from a brief temporary period when the rate of production was accelerated, the strained supply situation continued throughout the war and naturally became even more acute during the later stages. Therefore, at all times the guiding principle in establishing tables of organization and equipment was the observance of stringent economy in all fields.

Very little information was available from World War I concerning the arrangement and contents of tables of organization and equipment, and what was available was useless, so that something entirely new had to be created. The small army Germany had been allowed to maintain in terms of the Treaty of Versailles had been very poorly balanced. Among other limitations, it had no heavy artillery, no armored vehicles, and no heavy infantry weapons. Therefore when the new army was established, and during the period of its expansion, new training regulations for the various arms had to be prepared.

Furthermore, it had to be taken into account that the training status of officers in all arms and services would be extremely low if mobilization should become necessary. For both of these reasons the new tables of organization and equipment had to include much information which would later be contained in training manuals and this information had to be presented in a form which would be intelligible even to untrained personnel. They had to stipulate not only the tactical organization of units but, as far as possible, the functions of each individual man. Furthermore, they had to be prepared in a form which made it possible for them to be kept up to date and adapted to the progressive development of weapons and tactical methods more readily than could training manuals, the preparation of which is a complicated process.

All these considerations brought about the establishment for each type of unit a loose-leaf table of organization and a table of equipment in which even the most minute details were included.

The term "unit" was applied to each separate body of troops and each independent agency, such as an infantry company, a battalion or regimental staff, a headquarters company, a supply or transportation column, a military hospital, a military sub-post headquarters, a military police or secret field police detachment, or a command staff from division level upward.

In addition, tables were established for sub-units, a number of which had to be consolidated to form a tactical unit. Division into sub-units was resorted to in the case of units with a variable composition, such as a heavy weapons company, which could consist of two heavy machine-gun platoons, one engineer platoon and one antitank platoon or of one cavalry gun platoon, one engineer and one antitank platoon. In this case a sub-unit table of organization provided for a heavy weapons company command staff with appropriate rear services, while separate tables provided for each of the types of platoons.

2

1. Form of the Tables. Table 3 has been prepared from memory and therefore cannot be considered complete.

Table 3--Specimen Table Of Organization And Equipment Form

Restricted	#	Line #	a	For items appearing in parentheses, state quantities in parentheses, as shown in example below:	light MGs heavy MGs 2 (6)
		Assignment category	b		
			Designate item here, using authorized abbreviations		
	Per-sonnel	Officers	d		
		Officials	e		
		NCOs	f		
		Men	g		
	Horses	Rifles	h		
		Pistols (SMGs)	i		
		Light (heavy) MGs	k		
		Horses, riding (mountain)	l		
		Horses, draft (pack animals)	m		
		Horses, hv draft (extra heavy)	n		
		Guns (projectors)	o		
		Vehicles, horse-drawn (other)	p		
		Cars	q		
		Trucks	Light		
	Medium		s		
	Heavy		t		
	MTRCLS (sidecars)		u		
Armor plated vehicles	v				
	Tanks	w			
	Cycles	x			

Remarks:

On the actual forms column c, the main column, was roughly three inches wide. No single form included all the above headings. Three separate forms existed, namely: a form for units with horse-drawn vehicles only, which included columns a-p, u, and x; a form for units with horse-drawn and motor vehicles, which included all columns except columns v and w; a form for fully motorized units, which did not include columns l, m, n, and x.

Date of issue.....

2. Allocated Number Series. Each unit type was given a type number according to an established system. The following table of allocated number series has been prepared from memory:

Table 4--Allocated Number Series for Types of Units

<u>Number Series</u>	<u>Unit Types</u>
1- 99	Command staffs down to and including brigade level
100-299	Infantry staffs and units
300-399	Cavalry and non-motorized reconnais- sance units
400-599	Artillery staffs and units
600-699	Chemical projector staffs and units
700-799	Engineer staffs and units
800-899	Signal service staffs and units
1000-1099	Motor transport staffs and units
1100-1199	Motorized and armored staffs and units
1200-1299	Supply service staffs and units
1300-1399	Medical staffs and units
1400-1499	Veterinary staffs and units
1500-1599	Railroad operation staffs and units
1600-1699	Fortifications and engineer special staffs and units
1700-1799	AAA staffs and units

Peacetime unit types were given the same number as wartime unit types but were preceded by an "O." The numbering system was the same in the Replacement Training Army, except that numbering started at 5,000.

This numbering system proved satisfactory and gradually became generally known to the troops. It was the only system used in requisitioning tables of organization and tables of equipment as well as in all activation orders. However, because of the creation of numerous new types of units during the war, the numbers within a series were found to be inadequate. This difficulty was overcome by the use of letters of the alphabet. Thus rifle companies, which had the number 131, ranged from 131a to 131e.

3. Purposes of the Tables. The purposes of the tables of organization and tables of equipment have been described in broad outline in the opening pages of this study. More specifically, the tables

were designed to give unit commanders as detailed, intelligible, and comprehensive a picture as possible of the composition and organization of the units they were to control, so as to enable them to activate, organize, and train their units even if they had no precise knowledge of the appropriate training manuals. Furthermore, through the information they contained on the organization, fire power, and mobility of the units concerned, the tables provided a guide to the possible tactical employment of the units and established a basis for the calculation of their supply requirements.

4. Contents of the Tables. To fulfill the foregoing purposes, it was necessary for the tables not only to divide each unit into its component elements, such as command group, platoons, combat, supply and baggage train, but also to specify the functions and the means of conveyance of each individual assigned. This made a great amount of detail necessary, as illustrated by the column headings in Table 3, Page 150 and Table 13, Page 180.

The examples below are offered to explain how the above requirement was met in respect to the individual personnel. The titles used have been taken from the main column of a table of organization, where they are followed by columns prescribing the number of personnel, weapons, horses, and vehicles to be assigned. It is presumed that a sufficient number of tables of organization and tables of equipment will be found among captured documents to enable the student to obtain more enlightenment on the subject.

The titles used in the main column of tables of organization were as follows:

Table 5--Personnel Designations used in Tables of Organization

Heavy machine-gun squad leader
Aiming circle NCO
Gunner
Dispatch rider (also carries tripod for battery commander's telescope)
Messenger (simultaneously telephone operator)
Radio and telephone operator
Messenger w/bicycle (simultaneously horse holder)
Motor vehicle drivers (1 for passenger car, 2 for trucks)
Bugler (accompanies company commander in car)
Clerks and draftsmen
Assistant motor vehicle driver (simultaneously motor mechanic)
Messengers (1 motorcycle driver, 1 on pillion, 1 in sidecar)

Table 5--Personnel Designations Used in Tables
of Organization--Continued

Motor vehicle maintenance NCO, in command of motor
maintenance team (with light motorcycle)
Medical NCO (with heavy motorcycle and sidecar)
Assistant horse driver (simultaneously farrier)
Unit farrier (in command of combat train)

The entries in column b of Tables 3 and 12 specified the rank of the personnel to be assigned. The letters of the alphabet are used here in meanings not to be found elsewhere, not even in regulations of any type, and for this reason an explanation now follows:

Table 6--Definition of Letters of Alphabet
in Tables of Organization

<u>Letter</u>	<u>Denoted</u>
M	Private (from <u>Mann</u>)
G	NCO (from <u>Gruppenfuehrer</u> --squad leader)
O	Master Sergeant (from <u>Oberfeldwebel</u> -- Master Sergeant)
Z	1st or 2d Lieutenant (from <u>Zugfuehrer</u> -- platoon leader)
K	Captain (from <u>Kompaniefuehrer</u> --company com- mander)
B	Field grade officer (from <u>Batallionsfuehrer</u> -- battalion commander)
R	Colonel (from <u>Regimentsfuehrer</u> --regimental commander)
I	Brigadier General (from <u>Infanteriefuehrer</u> -- infantry commander)
D	Major General (from <u>Divisionsfuehrer</u> -- division commander)
F	Lieutenant General (from <u>Feldkommandeur</u> -- field commander)
A	General (from <u>Armeeefuehrer</u> --army commander)

No space was provided in the columns for sergeants below the rank of master sergeant, their assignment being regulated by a footnote to the table of organization stating that a certain number of G positions were to be filled by sergeants. For personnel assigned to posts requiring the assignment of acting corporals, the conditions embodied in the promotion regulations contained in Field Manual 29 (Heeresdruckvorschrift 29) were applicable.

A cross, circle or an "&" in the right margin of the main column signified, in that order, that the positions thus marked were to be filled by cadre personnel, by personnel with little military training, or by personnel without military training, as was the case with artisans and bakers. These markings were adopted at a time when it was envisaged that the small professional army then in existence might have to provide the hard core for a much larger force in an emergency. They were retained later and proved extremely useful in the drafting of orders regulating the activation of new units.

Technical personnel, particularly for railroad operation, fortification construction, and mining units were specified by use of "top line numbers" (Kopfleistenzahl), a term coined in a regulation of the Replacement Training Army, where it was prescribed that the basic record sheet maintained by the recruiting district headquarters for each person liable to military service was to show in the top line, expressed in numbers, what vocational training the individual concerned had received. Thus, training in the laying of pipe lines was expressed by the number 325, in welding by the number 638, and in stone masonry by the number 452. These numbers entered in the appropriate columns of the tables expressed unmistakably the qualifications required in the personnel to be assigned and the authorities handling activations were thoroughly conversant with the use of the system.

During the last two years of the war it became necessary to specify the posts in which subjects of hostile nations who had volunteered for service as noncombatants in the armed forces could be employed.

Finally, the tables of organization established the official designations of units and the official abbreviations of those designations.

Table 7 lists the kinds of information which could be obtained from a table of organization in addition to the authorized strength of the unit concerned.

Table 7--Information Obtainable from a
Table of Organization

a. Information Useful to Troops in the Unit.

The tactical organization and composition of the unit;
The weapons, employment, purpose and means of conveyance
of every individual in the unit;
Promotion possibilities for NCOs and privates;
Distribution of regular army personnel within the unit.

b. Information Useful to Command Staffs.

(1) Obtainable from the Tables of Organization for the
Units controlled.

The tactical organization and firepower of the
unit concerned;
Authorized strength in horses, weapons and vehicles;
Types and capacities of authorized motor vehicles.

(2) Obtainable from the Table of Organization of the
Staff itself.

Information which could serve as a guide in the
distribution of functions within the staff;
Other information as listed under Item a, above.

(3) Information Useful to Officers Handling the Assign-
ment of Personnel.

Total number of specialized personnel required, such
as radio operators, maintenance, medical and veterinary personnel.

c. Information Required by the Replacement Training Army in
the Activation of New Units.

All essential information to insure proper selection of
personnel, particularly in respect to their training, and of the
appropriate types of horses and motor vehicles. (Of particular im-
portance in the assignment of personnel to new units was the fact that
the tables differentiated between the number of cadre personnel and
the number of partly-trained military personnel to be assigned.)

d. Information Required by Training Units of Replacement
Training Army.

Particulars on what type of field training was required.

5. The Scope of Tables of Organization. For combat units and rear service units of the field forces as well as for line of communications units in occupied territories, established tables of organization were absolutely essential. The Replacement Training Army also required a firm working basis of some sort. A wartime table of organization was established for each unit and staff in that Army except units and staffs which continued to exist according to their peacetime tables of organization. Mention must be made here of the actual training units, for which flexible tables were prepared,¹ and of the home guard units, the schools, the demonstration units, and numerous other units and staffs. The number of unit types for which tables were prepared by the end of the war is estimated at 2,800-3,000.

It occurred frequently that differently designated units differed only slightly, or not at all, in their composition. In such cases, a single table was valid for all of them. Thus the table of organization for Unit Type 805 was valid for the headquarters staff of a corps motorized signal battalion, a panzer corps signal battalion, a mountain corps signal battalion, a panzer division signal battalion, and an armored infantry corps signal battalion. As another example, a single table of organization was valid for fortress or coastal batteries with a varying number of guns--two, four, or six 75-mm.

The table of organization specifying the authorized strength of the Army High Command was known as the Spitzengliederung (Top-Level Command Organization). It was prepared and issued separately from the other tables by a section of the Army General Staff.

For every table of organization there was a table of equipment. A table of organization, in addition to specifying the authorized armament and vehicular transportation facilities of a unit, contained numerous references to items of equipment, so that it could be used alone in the activation of a unit if no appropriate table of equipment

¹In addition to the normal 14 authorized number of instructor personnel, the tables stipulated the extent to which the units could be expanded to train recruits. One stipulation was that for every twenty recruits above the normal number, the unit was to be assigned one instructor and one assistant instructor.

was available. Nevertheless, a table of equipment was essential to complete the outfitting of the unit. These tables specified the quantities of materiel of all types to be assigned to the unit, and gave the name of each item and the stock number to be used in requisitioning it.

Equipment packages, such as the contents of a medicine chest or a complete set of harness for a riding horse, were mentioned in a table of equipment by their collective name only; the individual items making up the package were listed in annexes. Approximately every fourth item of equipment mentioned in the tables consisted of a package and the appropriate annexes accompanied the table bound in a separate volume. Thus the complete "authorized strength" of a unit was shown in a table of organization, a table of equipment, and a volume of annexes.

6. Processing of Tables of Organization and Tables of Equipment. In compiling the order of battle for the Army, the services of all branches and agencies under the Ministry of War were required. The Personnel Office, which handled officer personnel; the branch handling NCOs and other enlisted men; the Army Administration Office, which handled uniformed officials; the inspectorates of the various arms and services; and the Musical Section and the Ordnance Office all did their part whenever the Army General Staff also played an important role. The threads spun in these various branches finally found their way to the General Army Office, where they were woven together to form the pattern embodied in the tables of organization and tables of equipment.

Officially, the Chief of the General Army Office was responsible for this work and its control was centralized in the Tables of Organization Branch of the Office. In 1938 this branch was staffed by one retired colonel, one NCO, and three female civilians. It grew steadily until the staff finally included 1 colonel, 1 major, 2 captains, 1 technical official, 4 NCOs, 4 privates, and 20-25 male and female civilians, as well as a printing detachment. Furthermore, for organizational reasons, responsibility for the administration and distribution of field manuals was transferred to the Tables of Organization Branch in 1940, although the duties involved continued to be handled separately under the supervision of the branch chief.

Under the control of the Tables of Organization Branch, the tables of organization were drafted by the arms and services inspectorates, for which purpose each inspectorate had a special section of 1 or 2 officers, 1 civilian technician, and a small number of other personnel according to the volume of work. As a rule the section was

headed by an elderly officer, whose concern was tables of organization, while the tables of equipment were assigned to officers and army officials with appropriate technical training. The special sections of the various inspectorates were grouped together to form a Table of Organization Working Committee (Arbeitsgemeinschaft).

In the case of units not belonging to any one specific arm or service, the Tables of Organization Branch handled the tables for command staffs from division level up and for certain types of special units. Inspectorate 8, the Supply Branch, handled the others.

a. Information Furnished by the Tables of Organization Branch. The Tables of Organization Branch furnished the following basic data for use in the drafting of tables of organization:

(1) Personnel Distribution Chart. This chart regulated the allocation of technical and administrative personnel to the various types of units. The categories included medical personnel; farriers; veterinary, field kitchen and technical ordnance personnel; technical officials, later designated technological officers; motor maintenance NCOs and motor mechanics; and radio operators and other technicians for the signal services. In addition the chart specified the number of master sergeants to be assigned to a unit and the number of other NCOs to be assigned to fill master sergeant posts. The form of the Personnel Distribution Chart was more or less as follows:

Table 8--Entries in Personnel Distribution Chart

Motor Vehicle Maintenance Services

Note: 2 cars or 3 motorcycles equivalent to 1 truck. (For armored vehicles use special distribution chart)

	<u>Sergeants</u> <u>(Mtr Maint)</u>	<u>Other NCOs</u> <u>(Mtr Svc)</u>	<u>Motor</u> <u>Mechanics</u>
Units with 1- 3 trucks	0	0	0
Units with 4- 6 trucks	0	0	1 part time
Units with 6-10 trucks	0	0	1
Units with 10-15 trucks	0	1	1
Units with 15-20 trucks	1	0	2
Units with 20-30 trucks	1	1	1
			1 part time

1 additional motor mechanic per 6 trucks over the above 30. In addition, battalion staffs of motorized units will be assigned 1 motor maintenance sergeant.

	<u>Farrier</u>	<u>Farriers</u>	<u>Part Time Farriers</u>
Units with 1- 3 horses	0	0	0
Units with 4-10 horses	0	0	1
Units with 11-20 horses	0	1	0
Units with 21-30 horses	1	1	0
Units with 31-50 horses	1	2	1

The Personnel Distribution Chart was compiled by the Tables of Organization Branch on the basis of data furnished by the arms and services inspectorates and was rarely changed.

The work of the personnel responsible for the compilation of war-time tables of organization was subject only to restrictions imposed by administrative technicalities. The tactical strength of units, the numerical strength and composition of gun crews, machine-gun, telephone, and radio teams and tank crews, the nature of tank armament, and all like details were handled by the arms and services inspectorates. These, in turn, based their calculations on directives received from the Army High Command, orders from the Army General Staff, reports from the troops, and the experience of the demonstration and experimental units they controlled. The only real mission of the Tables of Organization Branch here was to insure that uniformity was maintained.

(2) Materiel Distribution Chart. A description of the Materiel Distribution Chart will follow in Chapter 2. At this point it is of interest only insofar as it specified the issue of rifles, pistols, and submachine guns to personnel.

In general, pistols were issued to officers, uniformed army officials, sergeants, and to personnel who carried equipment which made it impossible for them to carry a rifle. Medical personnel with the troops were issued pistols; after the Polish campaign, personnel in medical units were issued rifles.

The Materiel Distribution Chart specified only the number of submachine guns to be issued a unit. The personnel to whom these were to be issued (and who were to receive no other weapons) were specified by the tables of organization. Authorized vehicles were authorized one submachine gun each.

(3) The Main Volume of Army Materiel. This volume listed all items of army equipment according to type. It dealt exclusively with materiel and will be discussed in Chapter 2.

(4) The Annexes. These also dealt exclusively with materiel and will be discussed in Chapter 2.

The principal mission of the Tables of Organization Working Committee was to compile the basic records referred to in items (1)-(4) above and to keep them up-to-date. Compiled originally in committee meetings which lasted many weeks in 1929 - 1930, the records required constant revision and attention. Every newly introduced weapon or other item of equipment had to be registered and given its place in the Main Volume and its distribution had to be regulated by means of the Distribution Chart. Every new type of unit created had to be registered and given its proper place.

If the Equipment Distribution Chart and the Main Volume of Equipment were kept currently up to date, the compilation of tables of equipment was a purely mechanical process, although it called for extreme precision. In contrast, the compilation of tables of organization required deep understanding and the gift of intuition in addition to the mechanical application of the Personnel Distribution Chart.

b. Procedures. The procedures followed were four in number:

(1) The arms and services inspectorates were required to draft the tables of organization and to submit the prepared drafts to the Tables of Organization Branch. Justification had to be submitted for the number of motor and other vehicles specified, and for this purpose an appropriate form was printed on the reverse side of the draft sheet. The following details were submitted:

(a) Food Supply Transport Column. Each unit was required to carry a basic supply consisting of a two-day ration per man and per horse in the unit. The weights involved were 1,200 grams, or 42 ounces, per man² and 4-6 kilograms, or 8.8 to 13.25 pounds, per horse³ and the total weight had to be distributed among the supply column of the unit.

²The weight of the standard ration per man per day was 1.5 kilograms, or 3.3 lbs, that of the standard ration per horse per day 10 kilograms, or 22 lbs. - Translator.

³Ibid.

Each battalion headquarters was authorized a 1st Supply Train, which moved supplies from the rearward depots, and a 2nd Supply Train. Each subordinate unit had its own supply train to carry supplies from the battalion distribution point to its own unit. In addition to the foregoing weights, allowance had to be made for a one-day emergency ration per man in the unit concerned.

(b) Fuel Transport Column. A daily fuel and lubricant consumption unit was established for every type of vehicle (sufficient for 100 kilometers of travel. Translator). The number of vehicles specified for a unit in its table of organization was entered in the form, together with details as to types and horse-powers and the authorized load of fuel, which was calculated according to the established daily fuel consumption units.

Units with a large number of motor vehicles were authorized a large tool box which weighed 750 kilograms. This weight had to be included in calculating the loads of the fuel transport column.

(c) Ammunition Supply Train. The authorized number of rounds of all types of ammunition, together with weights, was obtained from the Main Volume of Army Materiel and the Distribution Chart.

(d) Baggage Train. All items of equipment which had to be transported were entered in the form, together with their weights. Broadly speaking, these items consisted of armorer-artificer, medical, and farrier equipment, unit office furnishings, and personal equipment. In all cases the weights were standard.

The disparity between theory and practice became most apparent in these loading calculations. No case is known in which a unit, and particularly a horse-drawn unit, was satisfied with its authorized transportation space. However, the shortage in horses, harnesses, motor vehicles, and fuel made it imperative for the General Army Office to enforce strictest economy. Again and again loading tests were carried out by the demonstration and experimental units to ascertain whether complaints made by the troops were justified and every effort was made to rectify inadequacies. The field units helped themselves by employing captured vehicles in addition to the transportation space they were authorized.

It was intended that a loading chart should be included as an annex to every table of organization prepared, but time available permitted this to be done only in very rare cases.

(2) When a table of organization was received in draft form by the Tables of Organization Branch it was submitted to a general examination during which all inaccuracies found were corrected.

(3) Then it was circulated, for concurrence among the arms and services inspectorates concerned. Usually the inspectorates concerned were the Infantry Inspectorate, which examined the figures for small arms, and the Signal, Medical, Veterinary, and Motor Transport Inspectorates. The inspectorates were required to ascertain whether the specifications of the Personnel and Equipment Distribution Charts were met and, in the case of new unit types, to decide whether it was necessary to modify the data in existing charts and the Main Volume of Army Materiel.

When shortages, especially in personnel and motor vehicles, became increasingly acute, the Army General Staff required that the tables be submitted to it for concurrence. In an increasingly large number of cases this requirement was met although a considerable loss of time resulted from the necessity of forwarding the tables to the Field Headquarters of the Army High Command for the purpose. The Army General Staff agency which checked the tables was the Organization Branch.

(4) All problems which arose were discussed at the bi-monthly meeting of the Tables of Organization Working Committee, where it was decided what additions or alterations were to be made in the distribution charts and the Main Volume.

c. Time Requirements. Time was one of the most important considerations in the preparation of tables of organization. Usually the Army High Command ordered accelerated action for certain types of units which could not be activated before a table of organization was established.

Normally the minimum time requirements in preparing the tables of organization for a new major unit were as follows:

Table 9--Drafting Tables of Organization;
Time Requirements

Preparation of a draft table of organization by the appropriate arms or service inspectorate	3-5 days
Preliminary examination by the Tables of Organization Branch	1 day

Examination by the inspectorates affected, per inspectorate	2 days
Examination by the Organization Branch of the Army General Staff, including time for transmission	8 days
Final draft by the Tables of Organization Branch	1 day

Thus a minimum of three weeks elapsed before the tables of organization could be printed and distributed. Considerably more time was required if any one of the inspectorates had to draft an entirely new series of tables.

As the time thus spent was too long for urgent projects, a temporary solution was sought through making mimeograph copies of the first drafts and distributing these, as Preliminary Tables of Organization, to the headquarters handling the activation of the unit concerned. The final tables were distributed later after they had been processed in the normal manner. In this way it was possible to accelerate the activation of a unit; but serious flaws in this procedure were that changes made before the final tables were printed could not be taken into consideration in the process of activation and that the unit was moved to the front before receiving its organizational data in entirety.

Owing to the rapid development of new types of vehicles and new tactical doctrines, the tables of organization for panzer and other motorized units were subject to frequent changes. During the last two years of the war the Office of the Inspector General of Panzer Troops therefore departed from the normal procedure and itself prepared and distributed tables of organization. However, it lacked a properly integrated distribution system. It soon found also that corps area headquarters were acting in accordance with outdated principles in handling the activation of these units, and that the exclusion of the other arms inspectorates from participation in drawing up the tables had harmful results.

The Waffen-SS also pursued a course of its own in the matter of tables of organization, but the General Army Office, with full justification, considered all such divergencies as extremely harmful and always did its best, unfortunately with little success, to prevent them.

d. Reproduction of Tables of Organization. Up to the outbreak of the war all tables of organization and tables of equipment, together with pertinent data, were classified as secret material and their reproduction was subject to the appropriate security regulations. The number of persons handling the reproduction was to be kept as small as possible, so that printing, at least for Tables of Organization, was entirely out of the question.⁴ For these reasons the tables of organization were typewritten and reproduced by photostat methods in a special section of the Government Printing Office reserved for the purpose. This explains the inconvenient size (11.75 x 16.5 inches) of the forms on which the tables were printed. On the other hand, the system precluded printers' errors and made the reading of galley proofs unnecessary. Normally reproduction took one week; in urgent cases, twenty-four hours.

Because of the growing number of tables of organization required, the capacity of the special section of the Government Printing Office was barely adequate, but under the prevailing security classification it could not be expanded. The situation was greatly relieved when the high security classification was downgraded so that printing methods could be used. The size was reduced to 8.25 x 11.5 inches and both sides of the sheet were printed, as had not been possible with the photostat method. To a steadily increasing extent the tables now were printed by the printing section of the Field Manual Administration, which was controlled by the General Army Office. During the war this section developed into a highly efficient installation.

Because of the expansion of the Army an increasingly large number of copies were required and frequent reprints became necessary. The required number of copies of the table of organization for the rifle company, the most numerous unit, rose from an initial figure of 2,400 to 10,000. In reprinting, the plates were prepared by the photographic method and especially black impressions of the original issue, printed only on one side of the sheet, were retained for the purpose. In some cases the tables were typed on 11.25 x 16.5 inches sheets and reduced by photographic means to 5.625 x 8.25 inches. For this purpose a carbon imprint had to be obtained on the reverse side of the sheet to be photographed.

In the end, the requirements for tables were so large that they could not be handled by the Field Manual Administration Branch, and much of the reproduction work had to be done under contract by private printing firms. In addition, the Tables of Organization Branch was assigned a printing detachment to handle reprints by photographic methods.

⁴Tables of equipment were printed even at this early stage.

The reproduction of tables of equipment and annexes was handled in very much the same manner as for tables of organization.

A further stage in the reproduction process was the sorting and binding of the printed sheets, which was done by women. Normally tables of organization consisted of 1 - 4 sheets; for training schools, of up to 20 sheets. Tables of equipment consisted of 6 - 25 sheets, and annexes of up to 50 sheets. Originally twine was used for binding, but at a later stage brass staples were introduced. The sheets were bound loosely in order to facilitate the removal of superseded sheets and the insertion of new ones. Tables of equipment, annexes, and whole series of tables of organization were bound in stiff cardboard covers.

Although the organization was improved and the reproduction facilities were expanded constantly, the time required for reproduction was too long. The situation was aggravated by paper shortages and the difficulty of obtaining labor. Remedies therefore were sought to satisfy the just complaints of the headquarters which handled activations. One of the remedies suggested was that the tables of organization should be prepared in a simplified form and that they should not include so much detail, so as to reduce their size and the amount of printing. However, the time required for reproduction would have remained unchanged and both the troops and the Army High Command insisted on the retention of the established form. This insistence may be taken as proof that the form in use was appropriate.

In reviewing and summarizing the experience gained in ten years of effort to accelerate the preparation and reproduction of tables of organization, it should be noted that during most of the processing time the tables were in transit from one office to another. For this reason all the work should be centralized, both in organization and location. All agencies handling the preparation, reproduction, and distribution of tables of organization should form a single branch, and the chief of branch should have direct control over the necessary printing establishment, which should be equipped with the most modern means of reproduction of all types.

7. Distribution. It is obvious that a relatively large organization was needed to administer and distribute the 3,000 types of tables, some of which consisted of as many as 50 sheets and 10,000 copies.

These functions were assigned to the Field Manual Administration Branch, which was under the immediate control of the General Army Office but was not part of the Army High Command. Located in a former caserne in Berlin-Schoeneberg, the branch had been established originally to handle only tables of organization and tables of equipment. In 1940, when the

responsibility for the administration of field manuals was transferred to the Tables of Organization Branch, the Field Manual Administration Branch was required to handle all printed regulations of the Army, although only the administration and distribution of tables of organization will be discussed here.

Although the Field Manual Administration Branch was a military agency, it was staffed by civilians, except for one field grade officer who was chief of the branch, two or three officer assistants, and a uniformed army administrative official. During the last years of the war the employment of disabled soldiers became necessary. Of the personnel employed roughly 70 percent handled tables of organization, about 25 percent handled printing and binding, 30 percent packing, and 15 percent administration and distribution.

Special attention had to be paid to security requirements; for example, measures had to be taken to prevent employees from obtaining from the tables a picture of the composition and location of the armies concerned. For this reason, the only information furnished to the Field Manual Administration Branch by the Tables of Organization Branch in dispatch orders was the type-number and the number of copies of the tables to be forwarded to corps area headquarters or to front distribution centers.

Up to the beginning of the war, the issue and storage of tables of organization was a preparatory measure against the event of mobilization. The agencies responsible for the direction of mobilization measures were the corps area headquarters. Each of these headquarters had a Regulations Distribution Center consisting of two sections, a Tables of Organization Section and a Field Manual Administration Section. The entire center was headed by a paymaster,⁵ and the Tables of Organization Section, which employed 5 - 10 civilians, by a uniformed army official of intermediate rank. The requisite number of tables of organization and tables of equipment were to be stored by these centers or distributed by them to the recruiting district headquarters, where they were to be attached to the appropriate unit mobilization schedules.

During the war this arrangement remained generally in force for newly activated units, but the distribution of revised tables to units already in the field proved more and more difficult.

⁵A uniformed army official usually with rank equivalent to that of a 2d lieutenant.

For the time being, the Tables of Organization Sections of the corps area headquarters continued to handle distribution, using the APO service. At times the tables were forwarded directly to individual units, at other times to the appropriate divisions for further distribution. However, this method soon proved unsatisfactory because of delays caused by the excessive strain on the APO services and because of the lack of packing material. Frequently shipments intended for Norway were forwarded first to Corps Area Headquarters Munich, and shipments for the Caucasus to Corps Area Headquarters Stuttgart.

To overcome these difficulties, front distribution centers were established at all army group and army headquarters simultaneously with the creation of a delivery service. Each front distribution center consisted of 1 NCO and 3 - 5 privates. The delivery service consisted of a company of 120 elderly sergeants and privates no longer fit for combat duty and assigned to the Field Manual Administration Branch. Details of one sergeant and two or three privates of the delivery service visited all fronts once or twice weekly, traveling by rail in reserved compartments or special box cars. By far the greater part of the material forwarded in this manner consisted of field manuals. Toward the end of the war the establishment of distribution centers at division headquarters also was approved and with the aid of the extensive service thus created, the speedy and relatively secure distribution of tables of organization was insured.

An established table specified the following distribution:

Table 10--Distribution of Tables of Organization
and Tables of Equipment

1 copy of its own tables of organization and equipment to every unit in existence.

2 copies of the tables for all units it controlled to every brigade or division headquarters or other staff; military command headquarters in occupied territories and to every military administration headquarters or garrison, post, or station headquarters in occupied territories and in the communication zones.

5 - 8 copies of all tables prepared to every corps area headquarters.

2 copies of all tables prepared to every recruiting district headquarters.

An unspecified number of copies to the various offices of the Wehrmacht, Army, Navy and Air Force High Command.

An unspecified number of copies of the tables for their component arms to the various units of the Replacement Training Army.

One responsibility of the Tables of Organization Branch was to determine the number of copies required by each user and to initiate the distribution. In determining the number of copies required, the branch had to base its calculations on the Order of Battle, which was issued by the Army General Staff at long intervals and had to be posted currently for this purpose. In addition, a card index had to be maintained to show how many sub-units a unit contained and where each was located. To avoid duplication of effort this card index was intended for use by all agencies of the General Army Office. The work involved was done by two officers and two sergeants.

To facilitate administration and distribution, the Tables of Organization Branch arranged tables in sets and in what were called separate staff volumes, as follows:

(1) Tables of Organization Sets. In fourteen volumes, each set contained a copy of every table of organization issued. The tables were arranged in separate volumes, according to arm or service, with a separate volume of tables of organization for the Replacement Training Army and zone of interior units.

(2) Corps Tables of Organization Sets. These contained tables for all corps headquarters units and division units. Separate sets were arranged for panzer, motorized infantry, mountain, and normal infantry corps.

(3) Division Tables of Organization Sets. These were arranged for all types of divisions and covered all units occurring in the type of division concerned.

(4) Staff Volumes. These were prepared for all types of regimental and battalion headquarters and covered all types of units they might control.

Similar volumes and sets of tables of equipment were arranged. The set of volumes containing all tables of equipment issued had a linear measure of roughly 9 - 12 feet.

The sets also included what was called a validity list, on which all tables of organization and tables of equipment were recorded, together with their date of issue and the date of issue of all appropriate cover sheets. Staffs below division level were furnished cover sheets applicable to them and to the units they controlled.

8. Current Posting of Data. The majority of the tables of organization and tables of equipment were subject to frequent modification. Early in the war minor changes were taken care of by regulations issued at frequent intervals by the Tables of Organization Branch. It was found, however, that these regulations did not always reach the troops, so that their purpose was frustrated. For this reason all changes were printed in a special section of the General Army Information Bulletin (Allgemeine Heeresmitteilungen) which was published weekly and contained all generally applicable regulations. All cover sheets to tables of organization and tables of equipment were printed in the special section, which was to be retained in all military agencies by the persons responsible for the current posting of organizational data.

Unfortunately, even this arrangement failed to insure that the necessary changes were made at all levels. The failure was due not so much to faulty organization as to the fact that the changes ordered in the cover sheets usually were unfavorable for the troops, calling for reductions in personnel, motor vehicles, horses, or other items, so that the troops were none too anxious to acquaint themselves with the contents.

From twenty to sixty corrections were necessary each week, of which number roughly one-tenth were corrections of printers' errors. It was considered inadvisable to maintain large stocks of printed tables, since the number of personnel employed in the administration centers was inadequate to handle the numerous corrections. Instead, labels explaining where additional details could be found were affixed to all tables shipped out.

When major changes occurred, entirely new tables had to be issued. Practically all wartime tables of organization were completely revised at least twice, some as many as six times, during the six years of the war.

In addition to the correction of errors, reasons for the frequent issue of revised tables of organization were as follows:

(1) The necessity of bringing the tables up to date in the light of experience gained in each campaign.

(2) The introduction of new types of weapons and vehicles.

(3) The increasing shortages in all fields, particularly in manpower, horses, and motor vehicles.

(4) The great amount of detailed information in the tables, and the tendency of all agencies concerned, even for minor changes, to issue a revised version of a table rather than accept the risk of uniformity being destroyed by the failure of field units to handle the cover sheets properly.

In 1943 - 1944 a special commission appointed by the Army General Staff made a study of conditions on all fronts with a view to economizing in personnel and materiel. This commission introduced such sweeping changes that new tables of organization had to be prepared for practically every type of unit. Some of the new tables, especially those for fully motorized units, included sketches showing the organization of the unit and, in particular, the distribution of personnel among the various vehicles. These sketches made the tables more easily intelligible and plans were under consideration for their general introduction.

CHAPTER 2

TABLES OF EQUIPMENT

I. GENERAL INFORMATION

For troops themselves as well as for the equipment supply services under the Army Chief of Supply and Administration, and for the ordnance services and the agencies handling development and production under the Army Ordnance Office, the information contained in tables of equipment is of extreme and sometimes even of vital importance. Chapter 1 explained why tables of organization had to be as comprehensive and detailed as possible. For similar reasons the tables of equipment had to be more than merely a specification of the quantities of materiel to be assigned. They were to serve as a guide for all agencies handling the supply and resupply and the administration and storage of materiel so as to avert the danger that each organization might develop a system of its own and thereby destroy over-all uniformity. For this purpose all materiel had to be grouped in categories and classes. This end was obtained through the following five basic measures:

1. All materiel was grouped in numbered materiel categories, as described on pp. 174-177, and registered and stored accordingly in the ordnance depots and equipment parks, so that administration and dispatch services were greatly simplified.
2. Each item was placed in a certain type class, as described on pp. 174-177. From the lists thus compiled it was possible to ascertain at a glance which arms or service inspectorate or developing agency was responsible for the handling of any specific item, in which Ordnance Office department it was administered, and in which army equipment parks it was stored in the field.
3. Each item was given a specific stock number, so that it could be requisitioned by number without the necessity of a complicated description. All materiel was listed in accordance with this numbering system in the ordnance depots and equipment parks.

4. The weight of each item or equipment package was given. This made it possible to calculate and equalize the loads of vehicles with the troops and to establish transportation space requirements for the supply services.

In contrast with tables of organization, there was no basic difference between peacetime and wartime tables of equipment. In fact it was intended after the war to establish one table of equipment, valid for peace and war, showing both the peacetime and wartime authorized issues.

The structure of the organization which handled the preparation of tables of equipment has been described in Chapter 1. Chapter 2 will explain how the tables were compiled; that is, how the authorized issue of equipment and ammunition for various types of units was determined.

At least during the war, personnel handling the preparation of tables of organization were restricted in their work only by the requirement that they should adhere to the specifications of the personnel distribution chart in the allocation of technical and administrative personnel. In contrast, the preparation of tables of equipment was regulated by rigid directives and the personnel responsible had to adhere strictly to the prescribed directives.

II. WORKING DATA

1. The Main Volume of Army Materiel. The Main Volume was essentially a stock ledger. It contained a complete register of all types of equipment, weapons, and expendable items issued in the Army. The Air Force and the Navy each had its own Main Volume. Items pertaining to all three branches of the Armed Forces, as did most items, were given the same number and name, so that they recurred in the Main Volume of all three branches. Thus, the Main Volume of Army Materiel contained various Air Force items, such as AAA guns and parachute equipment, and Navy items, such as boats and diving equipment.

The Main Volume was established in 1927 - 1928, when all items of materiel in the Army were registered in materiel categories and type classes. At the same time each item was given an official name and a stock number. The Tables of Organization Branch of the General Army Office handled this work at the time and had been assigned the responsibility of keeping the volume up to date from then on, which meant that every superseded item had to be cancelled and every newly introduced item registered and placed in its proper grouping. This was an extremely difficult task because, as

rearmament progressed, innumerable projects were launched to develop new types of equipment of all kinds. Very few of these were carried through to completion. Moreover, some of the agencies handling development failed to understand the purpose of the Main Volume and either neglected to report newly introduced items or requested the registration of items not yet introduced or the cancellation of outdated items of which stocks were still on hand. Furthermore, it was not always easy to determine the proper classification of complicated equipment packages or to assign them a materiel category and stock number. Nor was it always easy to decide whether an item was to be regarded as an Air Force or Army item.

a. Category Numbering. The entries and category numbers on the following table have been selected at random and not all can be considered as unconditionally accurate. The underlined category numbers are accurate, but some doubt exists as to the others:

Table 11--Table of Categories (Equipment)

<u>Category Number</u>	<u>Equipment Category</u>
<u>1</u>	Small arms
<u>2</u>	Machine guns
<u>3</u>	Explosives and detonators for use in close combat
4	Mortars
<u>5</u>	Artillery Guns
10	Parachutes
<u>13</u>	Ammunition and ammunition containers
<u>20</u>	Horse-drawn vehicles
<u>21</u>	Motor vehicles
<u>23</u>	Bicycles
<u>24</u>	Telephone, radio and morse equipment
<u>26</u>	Lighting equipment
<u>27</u>	Observation and survey equipment
28	Bridge equipment
<u>29</u>	Engineer equipment
31	Fire fighting equipment
33	Smoke screening and camouflage equipment
<u>34</u>	Ordnance equipment
<u>35</u>	Photographic equipment

Table 11--Table of Categories (Equipment)--Continued

<u>Category Number</u>	<u>Equipment Category</u>
<u>36</u>	Medical equipment
<u>37</u>	Veterinary equipment
<u>38</u>	Gas protection equip- ment
39	Rations
<u>40</u>	Power units, ma- chinery, workshop equipment and tools
<u>41</u>	Clothing and personal equipment
<u>42</u>	Special purpose clothing
<u>43</u>	Office materials, printing equipment
<u>44</u>	Field Manuals and other printed regulations
45	Harnesses and stable equipment
<u>47</u>	Fuel, cleaning material and lubri- cants
<u>48</u>	Raw materials
<u>49</u>	Housekeeping requisites
53	Balloon equipment
54	Tent equipment
56	Railway material
58	Meteorological equipment
59	Boats

Numbers omitted in the list were used by the Navy and the Air Force to designate materiel categories not in general use in the Army.

For security reasons, the category numbers assigned to V-type and other secret weapons were not entered in the Main Volume.

b. Classification according to Arms and Services. The following list is by no means complete, but should serve to make the classification system intelligible to the reader.

Table 12--Materiel Classification Symbols

<u>Symbol</u>	<u>Classification</u>	<u>Materiel</u>
J	Infantry equipment	Small arms, infantry guns and mortars, AT guns up to and including 20-mm caliber, bicycles, infantry vehicles, armorer-artificer and ski equipment.
A	Artillery equipment	All guns from 37-mm caliber up (excluding AAA guns), optical instruments, balloon and meteorological equipment, artillery vehicles, artillery armorer-artificer equipment.
P	Engineer equipment	Entrenching tools, bridge sections, hand grenades, close combat materiel, explosives, flame throwers, searchlights, material for obstacle and well construction, engineer vehicles, air compressors, engineer machinery, assault and landing boats, pontons.
N	Signal communications equipment	Telephone, radio and morse lamp instruments, signal pistols, and flares, flashlights and other lighting equipment-including electricity plants,

Table 12--Materiel Classification Symbols--Continued

Symbol	Classification	Materiel
N--Continued		batteries and battery charging installations, signal service vehicles, construction sets for signal vehicles, signal service tools, power aggregates.
K	Motor transport equipment	Motor vehicles, trailers, tires and tubes, fire extinguishers, fuel containers and tanking requisites, all motor maintenance tools and machinery.
F	Horse driving equipment	Horse-drawn vehicles in general, harnesses, stable requirements, wagon building tools and machinery.
H	General army equipment	Field kitchens, cooking utensils, tents, army vehicles and sledges.
S	Medical equipment	Hospital tents and all equipment enumerated under Materiel Category 36.
V	Veterinary equipment	Vehicles of the veterinary service, and all equipment enumerated under Materiel Category 37.
Sm	Surveying and observation equipment	Sound and flash ranging and surveying instruments.

Table 12--Material Classification Symbols--Continued

Symbol	Classification	Material
Vv	Administrative service equipment	Billet requisites, tailor, bootmaker and saddler tools, scythes.
W	Smoke screening equipment	Chemical projectors, decontamination, gas protection and smoke screening equipment.
B	Clothing	Clothing and personal equipment, special purpose clothing.
E	Railroad equipment	Rail vehicles, railroad construction and demolition equipment.
F	Air Force Equipment	AAA guns, data computing instruments, parachute equipment.
and		All expendable items, such as fuel lubricants, carbide, paints and such raw materials as sheet and malleable iron and steel.
Horse-drawn vehicles and general army equipment were stored in general army equipment parks. Materiel classified under the symbols Hm and Fl were stored in artillery parks. Otherwise the symbols under which the materiel was classified corresponded to the identification symbols of the installations at which it was stored. Stock Numbers. The stock number was compounded of the appropriate classification and a four-digit number. All items were numbered consecutively within each classification as they were introduced. The same numbers therefore appeared in all classifications, distinguished only by their prefixed classification symbol. The establishment of stock numbers was a responsibility of the Army Ordnance Office where it was handled by the Directive Branch (Wa Z 4).		

which was responsible for all administrative work connected with the development of equipment. This branch had the most complete information on the stage of development of an item and therefore was the proper authority to establish stock numbers.

About 1944 the Ministry for War Production insisted on the introduction of the Reich Commodity Number System (Reichswarennummer) in place of the stock number system. In the Reich Commodity Number System an eight- or nine-digit number expressed the percentages of the various raw materials used in the production of an article. The information could be computed by means of a punched card computing machine and was important in armament production calculations at a high level, but of no importance whatever in requisitioning. Furthermore, the long rows of numbers involved would have introduced a grave source of possible errors both in printing and in requisitioning, in addition to the unnecessary and severe strain imposed on the minds of the personnel who worked daily with stock numbers and had to memorize at least some of them. Nevertheless, on orders from the highest level of command, the system was adopted for a number of newly-introduced items of equipment and was to be used generally after the war.

No further comment will be made on the new numbering system, but it can be said that the original system of requisitioning and administration, with the aid of tables of equipment and the methods described above, proved satisfactory in every respect.

2. Form and Organization of the Main Volume. The page size of the Main Volume was 11.75 x 16.5 inches. The upper half of each page was taken up by headings as shown in Table 13. The purpose and arrangement of the lower half is explained in Section III, page 188, on the preparation of tables of equipment. The volume contained roughly 250-300 pages, bound loosely because of the constantly recurring need to remove or insert sheets. It was classified as secret because it afforded a complete insight into the materiel equipment of the Army. Only the arms and services inspectorates and the highest authorities controlling the development and administration of equipment were allowed to have copies.

Originally the Main Volume had been intended for use as a stock control list in all ordnance depots, but such use proved impossible because the volume was subject to constant changes and therefore was never completed, although it was useful to the General Army Office. Only fifty copies were prepared.

The four pages of Table 13 reconstruct specimen pages from the Main Volume. In reading the legend which interprets the letters and entries found there, the reader should bear in mind that all pages in the Main Volume covering one class of equipment were numbered consecutively. The item dealt with on a page was entered at the top of the page as a heading.

Table 13--Main Volume (Specimen Page)¹

Small Arms

a	b	c	d
k	Bayonet	0.25	J 4
st	Carbine, old model	3.6	J 168
b	Parts and appliances, for carbine, old model, set of		Annex J 742
st	Carbine, Model 98	3.7	J 345
b	Accessories and appliances for carbine, Model 98, set of		Appendix J 852
st	Carbine, short	3.1	J 347
b	Accessories and appliances for carbine, short, set of		Appendix J 855
st	Rifle, Model 98	3.9	J 423
b	Accessories and appliances for rifle, Model 98, set of		Appendix J 877
st	Pistols Model 08	0.8	J 95
st	SMG Model 34	2.7	J 1784
b	Accessories and appliances for SMS Model 34, set of		Appendix J 1495
s	Armorer-artificer set of parts for small arms		Appendix J 1422
st	Rifle, Model 38	2.9	J 3948
s	Accessories and appliances for rifle, Model 38		Appendix J 4832

Page #

¹For legend see p. 184.

Table 13--Main Volume (Specimen Page)--Continued

st		u	c
st	Field gun, Model 16		A 158
e	Accessories and appliances for Field Gun Model 16, set of		Annex A 138
e	Battery set of accessories and appliances for Field gun Model 16		Annex A 284
st	Light field howitzer		A 1394
e	Accessories and appliances for light field howitzer Model 12, set of		Annex A 397
e	Battery set of accessories and appliances for field howitzer Model 18		Annex A 595
st	Heavy field howitzer Model 18		A 1596
e	Set of accessories and appliances for heavy field howitzer Model 18		Annex A 539
e	Battery set of accessories and appliances for heavy field howitzer Model 18		Annex A 542
st	210-mm howitzer		A 1738
e	Set of accessories and appliances for 210-mm howitzer		Annex A 342
e	Battery set of accessories and appliances for 210-mm howitzer		Annex A 528

Page #

Table 13--Main Volume (Specimen Page)--Continued

27 Observation and Surveying Apparatus

Q	P	Q	P
S	Aiming circle, old type	124 grams	A 3847
S	Aiming circle, Model 31	145 grams	A 3859
S	Aiming circle, Model 40	145 grams	A 3869
P	Tripod and case for aiming circle	2.5	A 3868 A 3870
S	Field glasses 6/8 with case	0.6	A 6754 A 6755
S	Field glasses 10/50 with case	0.9	A 6924 A 6976
S	Battery commander's telescope		Annex A 2367
P	Case for battery command telescope	200 grams	Annex A 2368
P	Tripod (w/case) for battery command telescope	3.7	A 2389
S	Coordinate scale with case	0.8	A 5432
S	Stadia rod	1.0	A 7685

Page #

Table 13--Main Volume(Specimen Page)--Continued

29	Entrenching Tools	Portable Entrenching Tools	P	e	w
			Spade, short	0.7	P 1456
			Spade, medium handle	0.8	P 1457
			Spade, long handle	1.3	P 1458
			Pick mattock	1.5	P 1765
			Double-bitted pickaxe	2.3	P 1770
			Claw hatchet	2	P 1784
			Axe, long	3.7	P 1789
			Wire cutters	0.8	P 1794
			Pouch, short spade, for mounted personnel	215 grams	P 2357
			Pouch, short spade, for personnel not mounted	215 grams	P 2378
			Pouch, long spade	254 grams	P 2345
			Pouch, double-bitted pickaxe	180 grams	P 2333
			Pouch, long axe	280 grams	P 2365
			Pouch, wire cutters	140 grams	P 2389

Legend to Table 13

Block

Letters

Meaning

a

st

The figures to be entered in the table of equipment for items appearing in this column were to be taken from the appropriate table of organization. This applied in the case of all weapons and vehicles.

s

The figures to be entered in the table of organization were to be taken from the equipment distribution chart.

k

One piece per person or horse in the unit involved.

b

To be issued as often as the main item of equipment with which it belonged and which was mentioned in a previous column. For instance, a carrying pouch for a short spade was to be issued for every spade authorized.

b

In this block the official name of the equipment item or package was entered.

c

In this block the weight per piece was entered. This applied only to individual items of equipment. The weight of equipment packages was obtained from the appropriate annex (pages 197-198).

d

This block showed the stock number for individual items of equipment. The stock numbers of equipment packages were obtained from the appropriate annexes.

If an item of equipment consisted of two parts which could be issued either separately or together, a number was given for each part, as for a pair of sun glasses with case, where the stock numbers were B 315/316. Certain items had a classification number but no stock number, as in the case of oil, gas, and raw materials, because they were expendable. In such cases a dash appeared instead of a stock number.

3. The Equipment Distribution Chart. Whereas the purpose of the Main Volume was to insure that only officially introduced items would be registered and that registration would take place under one established stock or annex number, the purpose of the Equipment Distribution Chart was to establish the quantities to be issued to troop units. The Distribution Chart was established in 1927-1929, simultaneously with the Main Volume in the following manner:

a. Each inspectorate was made responsible for the administration of certain types of equipment considered basic to its arm or service.

b. Acting for its arm or service, each inspectorate requested from the other appropriate inspectorates, which could be recognized from the stock numbers of the items concerned, the allocation of the quantities of materiel it considered necessary for its unit.

c. The inspectorate responsible for the distribution of an item of equipment kept records concerning the quantities available or in production and prepared a distribution code on the basis of the requests it received from the inspectorates.

d. The distribution codes were submitted to the Tables of Organization Branch for examination and discussion at the meetings of the Tables of Organization Working Committee (Chapter 1, III, 148). Here, the requirements of the various arms and services were coordinated. At the same time the distribution codes were given a final form, for entry in the Distribution Chart, and declared valid.

Departures from the quantities of equipment authorized in the Distribution Chart, either in excess of or below the authorized figure, were permissible only in exceptional cases and only with the approval of the inspectorate responsible for the distribution of the item. However, because of fluctuating supply situation, the creation of new types of units for which distribution codes had to be established, and the introduction of new items of equipment, the Equipment Distribution Chart was subject to many more changes than was the Main Volume.

To explain its nature, a few examples of entries in the Distribution Chart are given in Table 14. Extremely simple examples have been chosen, but in some cases the process involved was exceedingly complicated.

Table 14--Entries in Equipment Distribution Chart

Ex Materiel Category 27

- Aiming circle, old type or
- Aiming circle 31 or
- Aiming circle 40:

Infantry Units

- Per machine-gun company, all types
- Per battalion staff (only if units controlled include a machine-gun company)

Cavalry Units

- Per heavy weapon company
- Per regimental headquarters (as reserve)

Artillery Units

- Per battery, all types except sound-ranging and survey batteries and batteries with special type guns

- Per battalion, as reserve

- (only if units controlled use aiming circles)

- Per balloon platoon

- Per ranging and survey platoon

Chemical Units

- Per smoke battery

- Per chemical battalion headquarters (as reserve)

Authorized Issue

2

2

1

1

Table 14--Entries in Equipment Distribution Chart--Continued

Ex Materiel Category 27--Continued

Authorized Issue

Antiaircraft Artillery Units

Per battery with guns exceeding
75-mm caliber
Per battalion, as reserve

Ex Materiel Category 49

Large Size Cooking Chest

Per unit without field kitchen
or field type cooking range,
for every ten men in unit

Per field hospital, all types,
in addition to above

Per fortifications company

Per unit with small cooking
range and with authorized
strength exceeding 125, for
every ten men in excess
in 125

Per unit with large field type
cooking range and authorized
strength exceeding 225, for
every ten men in excess of 225

The Equipment Distribution Chart was bound in two volumes of 300-400 pages. Each was so bound that sheets could be removed or inserted and its contents were organized similarly to the contents of the Main Volume. The size of the sheets was 8.25 x 11.75 inches.

4. **Equipment Indexes.** Various indexes and bulletins were issued by the Army Ordnance Office to facilitate the finding of items in the chart. These included an Index of Commercial Types, an Illustrated Catalog of Motor Vehicles, and Illustrated Catalog of Horse-Drawn Vehicles and a Descriptive Catalog of Signal Communications Items of Equipment and Their Uses. The bulletins described tents, sledges, and snow runners. All the publications carried illustrations of the items of equipment and such information as their measurements and possible uses.

III. TABLES OF EQUIPMENT

1. Equipment Nomenclature. In the scheme of equipment nomenclature, differentiation between commercial and army types of equipment was necessary. All items which could be purchased through normal trade channels and which were used by the Army in their existing form were called commercial types. All items developed specifically for the Army and for which the construction and production blueprints were filed in the Army Ordnance Office were described as Army types. For every commercial type the official designation was followed by an (O). Any item not so registered could be recognized immediately as an army type. Generally speaking, this differentiation was of interest to the procuring agency only.

In the case of motor vehicles the differentiation went still further. Vehicles with standard chassis and bodies which could be procured in the open market, and which therefore were to be confiscated in the event of mobilization, were described as commercial types. Vehicles with a commercial type chassis but an army type body were described as army types. Those with a special type chassis and a special type body were called special type vehicles. Commercial type vehicles were designated by an (O); for instance, "Light Truck (O)." Army vehicles were given vehicle type numbers such as Kfz 2 (Motor Vehicle Type 2) for a light motor maintenance truck, Kfz 17 for a medium telephone service motor vehicle, or Kfz 31 for an ambulance truck. Special vehicles, with a special chassis and body, were designated by the letters "Sd" (abbreviation of sonder--special) before the "Kfz"; for instance, Sd Kfz 167 for an assault gun or Sd Kfz 171 for a Tiger tank. In addition, the designation of the gun mounted on a vehicle was given; for example, Panzerjaeger 38/75-mm Pak 39 (L/48) (Sd Kfz 138/2) (meaning Tank Destroyer 38, 75-mm AT gun, Model 39, long barrel 48 calibers, mounted on special type vehicle 138/2).

Motor vehicles were classified further as light, medium or heavy. In the case of passenger cars this classification was determined by the cylinder volume; a car with a cylinder volume of up to 2 cubic centimeters was classified as light, from 2 to 3.6 cubic centimeters as medium, and above 3.6 cubic centimeters as heavy. (These cylinder volumes are given from memory and may not be accurate.) Trucks were classified, according to carrying capacity, as light, up to 2 tons; medium, between 2 and 3.5 tons; and heavy, over 3.5 tons. In the course of the war it became more customary to state the tonnage of trucks instead of their classification thus specifying carrying capacity.

A differentiation also had to be made between road and all-terrain vehicles. The latter were identified by the addition of a "gl" (abbreviation of Gelaendegaengig--capable of all-terrain travel) to the designation. Although the concept of an all-terrain vehicle was clear, opinions differed as to whether the various types marked "gl" actually fulfilled the growing requirements. For this reason, later in the war only those vehicles which experience proved really capable of all-terrain travel¹ were identified by a "gl." Vehicles not included in this category were marked "Glf" (abbreviation of Gelaendefahig--capable of off-road travel).

Horse-drawn vehicles also had various type designations. In addition to the commercial types used in supply services and service trains, which were all identified by an "O," practically all units of all the arms had specially-constructed army vehicles. If a vehicle was in general use in the Army it was designated as "Hf" (abbreviation of Heeresfahrzeug--army vehicle). Thus Hf 1 denoted a small field wagon, Hf 2 a large field wagon, Hf 11 a small field kitchen, Hf 13 a large field kitchen.

Combat vehicles were designated by the appropriate Materiel Category number. Thus an observation car was designated Af 12,² a signal service car Nf 7,³ an ammunition and weapons truck Jf 5.⁴

The symbols did not express carrying capacity. The capacity was known to the persons handling distribution and in addition, was marked on each vehicle.

Constructional and other differences between similar weapons of the same caliber were expressed by digits showing the year of their introduction into the army; for example, "Rifle 98," "Rifle 38," "Machine Gun 34," "Machine Gun 42," "Heavy Field Howitzer 18," "Heavy Field Howitzer 34." However, during the war weapons were developed so sporadically that the year of introduction no longer sufficed. Furthermore, this system made it possible for the enemy to obtain knowledge concerning progress in the development of weapons. So a new system,

¹Tracklaying and multiple-drive vehicles.

²Af, Nf, Tf: Artillerie-Nachrichten- und Infanteriefahrzeuge or Artillery, Signal, and Infantry type vehicle, respectively.

³Ibid.

⁴Ibid.

under which new weapons were given a number in no way related to their caliber, barrel length, or year of initial construction, was introduced. A gun now could be described simply as Gun 154, Tank Gun 427 or Mortar 294.

This system, doubtless, was intended to follow a definite pattern which would enable the initiated to recognize the characteristics of a weapon from its number. Whether such a pattern was established is not known to the author, since such matters were handled by the arms and services inspectorates and required only general approval by the General Army Office. It is known, however, that the new numbering system was not accepted with enthusiasm by the troops, who preferred to service, for example, their familiar Light Field Howitzer 18 rather than a gun numbered 165.

2. The Compilation of a Table of Equipment. Although the compilation of a table of equipment required precise work, practice and experience, it was a purely mechanical process and did not involve actual decisions concerning quantities of materiel to be authorized. Such decisions were made during the compilation of data for the Main Volume, the Equipment Distribution Chart, and the tables of organization by the various inspectorates, and chiefly by the inspectorate responsible for the unit type concerned. The final responsibility for the data involved rested formally with the Tables of Organization Branch. This branch also made final decisions when agreement could not be reached between the participating inspectorates.

The use of numbers and letters of the alphabet in the Distribution Chart, which represented a radically abbreviated and precise medium of expression, required a high degree of intelligence. The work was therefore so distributed in the inspectorates that the chief of the tables of organization section of each inspectorate handled the Main Volume and the Distribution Chart, with the assistance of the appropriate equipment specialists, while the actual compilation of the tables was handled by subordinate personnel.

In ascertaining authorized quantities of materiel for individual units, the process was as follows:

(1) On each page of the Main Volume the lower twenty-four lines were left blank.

(2) Sub-volumes were used for rough drafts of the required tables. Units of each arm were consolidated in related groups, such as staffs or companies, supply or transportation columns, and bound in separate volumes according to the page of the Main Volume on which their equipment appeared.

In each sub-volume, a fold-over sheet, level with the lower half of each page, was attached. On this fold-over sheet, and level with the twenty-four blank lines in the Main Volume, the units to be included in the sub-volume were entered, together with their authorized strengths according to their tables of organization.

(3) The columns of the sub-volume now were studied in conjunction with the appropriate columns of the Main Volume. If an "st" (abbreviation of Staerkenachweisung--Table of Organization) appeared in line "a" of an item column of the Main Volume, the authorized quantity of that item for the unit in question was obtained from the unit's table of organization and entered in the proper blank space on the lower half of the sub-volume page. If an "s" (abbreviation of Schluesssel--Equipment Distribution Chart) appeared in line "a" of an item column, the figures had to be obtained from the proper page of the Equipment Distribution Chart. A "k" (abbreviation of je Kopf--per capita) indicated that the figure given on the fold-over sheet for the authorized strength of the unit was to be entered in the proper blank space. A "b" indicated that the related item was to be found in a column of the Equipment Distribution Chart. If the compiler deviated from the established authorized quantity for any reason, the reason had to be stated in a footnote.

(4) When completed, the sub-volumes were submitted to the Tables of Organization Branch, which forwarded them to the appropriate inspectorates for concurrence. In addition to ascertaining whether the specifications of the Distribution Chart were complied with, the inspectorates were required to determine whether any item of equipment had been overlooked. Usually a considerable number of inaccuracies were discovered, making the examination of the tables a most important function of the inspectorates.

(5) Finally, each inspectorate was given the sub-volume of the units for which it was responsible and from it prepared an extract, on a printed form for each unit involved. The extracts were the final copy from which the tables of equipment were printed.

This lengthy process was employed prior to the war, when the compilation of wartime tables of equipment was nothing but a preparatory measure against the eventuality of mobilization. At the beginning of the war the process was greatly simplified by the introduction of printed table of equipment forms. These forms contained all the columns appearing in the Main Volume except those for items rarely issued. Instead of having to turn to the proper page of the Main Volume when preparing a sub-volume, it was only necessary now to

Table 15--Wartime Table of Equipment (Specimen)

Restricted

Heavy Four Howitzer (Model 18) Battery¹ # 433

Line	Stock #	Annex #	Item	a	b	c	d
a			1 Small arms				
b	J 4		Bayonet 0.25	124			
c	J 347		Carbine, short 3.1	98			
d		J 855	Accessories and appliances. Set for one carbine, short	98			
e	J 95		Pistol Model 08 0.8	22			
f	J 1784		SMG 2.7	4			
g		J 1495	Accessories and appliances, set for one SMG	4			
h	J 3578		Light MG	2			
i		J 2456	Accessories and appliances. Set for one MG	2			
k	J 4375		Tripod	2			
l			5 Guns				
m	A 1596		Heavy field howitzer, Model 18	4			
n	A	A 539	Accessories and appliances. Set for one hvy fld howitzer	4			
o		A 542	Accessories and appliances. Set for one battery, hvy field howitzers	1			

select the proper printed form. On this form, the items not required were deleted and the authorized figures for required items entered in the proper column. A final copy for printing could now be prepared in one process and the possibility of errors in making the extracts was eliminated. A disadvantage, however, was that the work had to be done for each unit separately instead of for a group of units, as had been possible under the former system.

3. Form and Content of Tables of Equipment. A page from a table of equipment, reconstructed from memory, is presented as Table 15.

In preparing tables of equipment the same principle was followed as in the preparation of tables of organization. That is, a multiplicity of details were included so that the tables would be intelligible even to untrained personnel. This objective was attained through the use of equipment distribution tables which prescribed, for each item of equipment in a unit, the individual to whom it was to be issued and the vehicle or pack animal on which it was to be transported.

Originally the equipment distribution table was attached as a separate annex to the appropriate table of equipment. Later, the information was entered on the table of equipment itself, immediately below the item involved. A special space was left blank for these entries. In certain cases, where the personnel to whom an article was to be issued were the same in most units, an appropriate entry was printed on the table of equipment form.

Table 16, a specimen equipment distribution table uses the issue of a flashlight with batteries as an illustration. In the associated Equipment Distribution Chart, the persons to whom and the weapons and instruments with which a flashlight and batteries were to be issued were listed as follows: per Officer and uniformed army official, 1; per Medical NCO (not mounted on motorcycle), 1; per Machine gun or artillery gun, 1; per Aiming circle (only if no other lighting device included) 1.

Table 16--Specimen Table of Distribution

Line d N 3427/8	Flashlight with batteries 42
e	4 officers each 1, 1 medical NCO 1
f	2 messengers on bicycles each 1,
	4 vehicles each 1
g	6 light machine guns each 1
h	13 for unspecified distribution

4. Reproduction. As long as tables of equipment remained subject to strict security regulations they were typewritten and reproduced by photographic methods. Consequently the size of paper used was inconvenient. In addition, the growing number of units being activated made it impossible to cope with the enormous amount of work. For this reason security requirements were soon relaxed and printing processes were employed, even though this process necessitated reading of galley proofs. In normal cases reproduction by this method required from four to five weeks, from final copy to distribution but far more time was required when entire series of tables had to be printed.

Usually the activation of units was ordered at short notice while, as in the case of tables of organization, the time required for the preparation of tables of equipment was long. On the other hand, proper outfitting of new types of units without the availability of data contained in the tables proved impossible. In the course of time it therefore became standing practice for the headquarters handling the activation of a unit to send an ordnance technician or maintenance sergeant to Berlin in order to take notes on the probable authorized equipment from the tables while they were being processed by the responsible inspectorate. Since, toward the end of the war, shortages made it impossible to equip new units fully anyhow, this practice had no harmful results.

Occasional use also was made of previously-mentioned preliminary tables of organization, which were mimeographed prior to their examination by the various inspectorates. In such cases, after receiving its proper tables of equipment, the unit concerned requisitioned from the army equipment parks the items it still lacked.

Tables of equipment were printed in pocket size, 4.5 x 5.75 inches, and bound loosely with twine or metal staples in covers on which the designation of the unit concerned was printed. A foreword, giving information concerning applicable cover sheets, an explanation of requisitioning procedures, and further items such as an explanation of the term "commercial types," was included.

5. Alterations and Tables of Equipment. Alterations were ordered in the same way as in the case of tables of organization (Chapter 1, III, 148). Logically, every numerical change in the tables of organization would necessitate changes in the corresponding tables of equipment. However, such changes were not made. It was found advisable to issue new tables of equipment frequently rather than to order changes in existing tables. The result was that new tables of equipment were issued with greater frequency than were tables

of organization. In most cases they were superseded or required alteration almost before they were issued. Since the average table of equipment consisted of fifteen pages and was printed in 4,000 copies, so that 60,000 sheets of paper were required for its production, a stage was reached where the issue of new tables depended on the working capacity of the inspectorates and the printing shops and the availability of paper rather than on the necessity for their revision.

In view of these circumstances a plan was considered for making the tables more permanently valid by omitting details concerning the authorized issue of items most subject to fluctuations; that is, items issued in quantities according to the numerical strength of the unit concerned. Under this plan each unit was to calculate its own authorized issue of such items on the basis of a simplified table of equipment. However, because of serious doubts that such a system would prove successful and because of the critical situation at the time, this plan was dropped.

Air raids caused such acute shortages of materials in the summer of 1944 that a general reduction of authorized issues of materiel became necessary. Hitherto the rate of production had been geared to correspond to the rate of consumption. Now the rate of consumption had to be adapted to possibilities of production. This necessity required a complete revision of all tables of equipment and their basic data. To insure that authorized issues would be calculated on the basis of actually available quantities of materiel, a special Tables of Equipment Staff was formed in Division I of the Policy Group. In 1944-1945 this staff revised the entire Equipment Distribution Chart, adapting it to the actual materiel potential. However, only a small number of the new, considerably reduced tables of equipment were completed by the war's end.

The larger part of a table of equipment listed items of personal equipment and clothing. Since the Clothing Branch issued its own special instructions for every newly-activated unit and since these instructions frequently invalidated the figures in the tables of equipment, items from Materiel Category 41 (clothing and personal equipment) were no longer specified in the tables. Instead, a cover sheet dealing with clothing was included.

The various printed regulations included in Materiel Category 44 were also so numerous and subject to so many changes that it was found more convenient to issue tables for mandatory unit libraries of regulations than to make the necessary entries in tables of equipment. The tables for the libraries were prepared by the Tables of Organization Branch in very much the same way as were the tables of equipment, with an established distribution list and a main index,

and were subject to concurrence by the arms and services inspectorates. They consisted of a general section, which listed all field manuals and other regulations required by all units; an arms and services section, which listed those required by all units of specific arms and services; and a special section, in which the field manuals and other regulations required by specific units of the various arms and services were listed. In outward appearance and arrangement the tables for mandatory unit libraries of regulations resembled tables of equipment and they were distributed on the same basis. They were revised thoroughly three times during the war.

Finally, items from Materiel Category 13 (ammunition) were also no longer included in the tables of equipment. The figures which had been entered had regulated only the initial issue of these items and had become invalid within a few days after the departure of the units for the field. Furthermore, the authorized issues were established in regulations and were known to the authorities responsible for the activation of units.

Tables of winter equipment deserve mention. In the autumn of 1941 immediate steps became necessary to adapt the German armies operating in the eastern theater to Russian winter conditions. Numerous articles, such as warm clothing, suitable field furnaces, sledges, runners for guns, and anti-freeze lubricants for weapons and vehicles had to be procured and distributed. Since it was not possible to adapt the existing tables of equipment in time, Winter Equipment Annexes were prepared by the Tables of Organization Branch for inclosure with the tables of equipment. These annexes were in the nature of distribution charts and therefore did not specify the quantities to be issued to individual units, but merely established distribution ratios. The annexes remained valid until the end of the war. Only a few items of winter equipment were entered in the normal tables of equipment.

Much work was devoted to calculating quantities and types of reserve materiel to be stored in the resupply parks of the various armies against the event of mobilization. The Main Volume and the tables of equipment admittedly contained brief notes such as "1 complete equipment outfit for an infantry (or artillery) park," but these equipment outfits consisted of thousands of individual items and equipment packages. Calculations were rendered even more difficult by the fact that, although strenuous efforts were made to standardize equipment within each army, armies differed widely in the types of weapons they were assigned. In the West, where the troops were to be employed in the Westwall, fortification and static weapons predominated; in the East, mobile and more up-to-date weapons.

Responsibility for this work was assigned to a special branch of the Ordnance Inspectorate but, as far as can be remembered, not a single table prescribing the stocks to be held in army parks was ever completed. This lag had no harmful consequences because the first phase of the Polish campaign was over before the first army parks were established.

The tables of equipment served not only as a working basis for the outfitting of units but were useful also in calculating re-supply requirements and future requirements for units to be activated. In addition, they served as a basis in calculating raw material requirements in over-all armament production. For this purpose they were processed by the punch card system at the Wehrmacht High Command. No particulars on this latter procedure are known to the author.

IV. ANNEXES TO TABLES OF EQUIPMENT

The Main Volume and tables of equipment covered only complete items of equipment. Separate parts, appliances, spare parts and containers were consolidated in equipment packages and the items of which an equipment package consisted were listed in annexes.

The first purpose of the annexes was to avoid making the Main Volume and the tables of equipment too voluminous and confusing. Their second purpose was to give each item of an equipment package and each part of an item its own stock number, since it was these items and parts which were requisitioned most frequently. Their third purpose was to save labor. Information in the annexes was subject to relatively few changes so that it was not necessary to rearrange and reprint the numerous minor items involved every time a new table of equipment was issued. Furthermore, it was not necessary for the General Army Office to prepare the annexes. They could be prepared by the agency of the Army Ordnance Office which was responsible, under the control of the Directive Branch (Wa Z 4), for the development of the item concerned.

The format of the annexes was simple. In outward appearance, they resembled tables of equipment. They listed the stock number of each item, its weight, the quantity to be issued, and the total weight of the equipment package of which the item was a part.

In preparing the annexes, rough drafts were drawn up by the Weapons and Equipment Development Branch and submitted to the Directive Branch, where the stock numbers were entered and the drafts put into standard form. The drafts were then forwarded to the various inspectorates for concurrence and finally to the Tables of Organization Branch for printing. Galley proofs were corrected by the Weapons and

Equipment Development Branch. Annexes were numbered consecutively as they were issued and not according to any special numbering system.

Sub-items which recurred frequently in annexes were listed in special annexes. Thus packages made up of precisely the same medicines were authorized for inclusion in the equipment of all hospital and veterinary units. These were listed in a special annex attached to the main annex. In such cases the remark "See special annex #.." was printed under the number of the main annex.

Each table of equipment was accompanied by an Annex Volume containing all the annexes entered in the annex column of the table. The Army Field Manual Administration Branch (Chapter I, III, 165) was responsible for the compilation of these Annex Volumes and for their attachment to the appropriate tables.

V. FINAL REMARKS

On the assumption that all documents mentioned in this study are to be found among the documents captured during and after the war and that an attempt is being or will be made to evaluate them, the subject under discussion has been treated in great detail so as to facilitate such a study. A thorough treatment was necessary because the methods employed in establishing the authorized strength of units in the German Army are not recorded in any regulations or other printed matter whatsoever. The present study is probably the only such record in existence.

Furthermore, the author considers himself the only person alive who is qualified to treat the subject exhaustively, since he was privileged to work in the Tables of Organization and Equipment field for fourteen years, during seven of which he was chief of the responsible branch. During this time he gained an intimate knowledge of this highly specialized field which, to the uninitiated, seems abstruse, boring, thankless, and without incentive to any person to occupy himself seriously with it.